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OS X YOSEMITE

38-page expert guide with 40 best Yosemite tips and full review



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Yosemite's off to a roaring success

Despite a few kinks, Apple's new desktop OS is a great improvement

Yosemite has been on my Macs at home and at work for almost a month now. And I'm not alone: by the end of October

Yosemite was running on one in five Macs. Chances are it's on your Mac, too.

There is plenty to like about Yosemite. I quickly switched from dropping files into Dropbox to using iCloud Drive. I even finally decided to upgrade to 20GB for 79p a month (having spent the past few years pruning my iCloud backup to keep it below the 5GB).

In Safari, clicking the URL bar to bring up a quick shortcut to my favourites is useful, as is the Tab View that shows thumbnails of all the tabs I have open.

Thanks to Widgets Notification Centre is now useful, rather than annoying. There aren't many to choose from, but that will soon change. And separating out the Today view was a genius move.

There are also some handy new things in Spotlight, such as the ability to perform quick calculations and conversions.

Calendar is a little more intelligent, autocompleting attendees if you create a regular event. There's also a lot more space for editing existing events.

Markup in Mail is useful, but Mail Drop more so. Paired with iCloud Drive, I will use Dropbox less and less.

And Yosemite just looks nicer than Mavericks. Some people don't like the new iOS-style icons, but I do. Also in Yosemite's favour is the fact it is free and runs on seven-year-old Macs – although older machines won't be able to access all the new features.

In the run up to the Yosemite launch I was enthusiastic about the promised Continuity features that would bring closer together the iPhone, iPad and Mac and make it easier to work with – and switch between – all your Apple devices.

Unfortunately, I was disappointed – at least initially: I had some issues getting



In general I've had a good experience with Yosemite, and it's destined to get better

these features to work. For a while I felt like a beta tester trying to get AirDrop and HandOff to function as expected. But the issues seemed to rectify themselves, and finally able to use these features I found some proved revolutionary.

Like other users, I've also been experiencing Wi-Fi issues. Apple is said to be working on an update to Yosemite that will resolve this issue.

There's another issue, too. A hacker with a Swedish security firm claims to have discovered in Yosemite a serious security hole that could grant an attacker root access to your machine. His advice for now is to use FileVault and avoid running your Mac from an admin account. Apple has said nothing on the matter, but is likely at work on a fix.

As annoying as these issues are, though, in general I've had a good experience with Yosemite, and it's one that's destined to only get better. It's just frustrating that Apple didn't see fit to iron out Yosemite's kinks prior to the operating system's launch.

Announcing EazyDraw Version 7 for Yosemite

EazyDraw[®]

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Vector Drawing App for Mac

EazyDraw version 7 optimized with integrated look and feel for Yosemite,
OS X version 10.10. Solutions included for all versions of OS X 10.4 and newer.

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Illustrations
Text Layout
Logo Design
Web Graphics
Charts & Diagrams
Technical Drawings



Take your communications to the next level with the Additions Pack which now includes the Character Builder library. The "presenter" above was built from Character Builder components.

Record Mac sales outstrip iPad revenue

5.5 million Macs sold in the last quarter by Apple as sales jump 21 percent year on year

BY GREGG KEIZER

Apple said that it sold a record 5.5 million Macs in the September quarter, boosting sales by 21 percent year on year as lean times continued for the overall personal computer sector.

The previous Mac record of 5.2 million sales was set three years ago.

The ensuing \$6.6bn in Mac revenues in the quarter was the highest ever, and accounted for 16 percent of Apple's total revenue of \$42.1bn – the highest since the September quarter of 2011.

Apple credited strong back-to-school sales for the numbers.

"The back-to-school season voted, and the Mac won and carried the day," CEO Tim Cook told Wall Street.

Apple's Mac sales surge caught analysts short, beating the forecasts of every single one of nearly three dozen Wall Street analysts polled by Fortune.

Mac unit sales were only 7 percent of total personal computer shipments for the period, according to market research company IDC. However, the Mac's sales growth was higher than the overall average – by a huge margin. In October, IDC and Gartner had respectively forecast the industry would lose 1.7- and 0.5 percent year on year.

It was the third consecutive quarter in which Apple set sales records, and the fourth straight quarter of year-on-year gains. This is no coincidence since the comparative quarters were the four during which Mac sales contracted: Q4 2012 through Q3 2013. Still, Apple's one-year

Cannibal computing Devices like the MacBook Air may have taken some iPad sales away

retrenchment has been much shorter than the overall market's, which by IDC's estimate has seen 10 quarters of decline.

The ASP, or average selling price, of the Mac line fell 4 percent quarter-on-quarter. The slip in ASP indicates a further tip toward lower-priced Macs. Apple has priced its personal computers aggressively this year, and also ran its usual back-to-school promotion this summer.

If sales of the new £1,999 5K Retina iMac take off, the ASP could again climb, although most analysts believe it will sell only in small quantities.

The Mac's sales onslaught may have come, at least in part, from customers choosing a traditional personal computer – particularly the light, thin MacBook Air notebook – rather than an iPad.

Apple reported iPad sales of 12.3 million, down 12.5 percent year on year and 7 percent lower than the June quarter, giving a third consecutive quarter of unit sales shrinkage.

In fact, the Mac beat the iPad in both revenue and percentage of total

company revenue for the first time since the March quarter of 2011.

Mac revenue was 25 percent higher than iPad revenue during the September quarter. A year ago, the roles were reversed, when the iPad brought in 10 percent more revenue than the Mac.

Cook, however, said he was fine with Apple eating itself: "I'm sure that some people looked at a Mac and an iPad and decided on a Mac, and I'm fine with that, by the way. I'm sure that some people will look at an iPad and an iPhone and decide just to get an iPhone, and I'm fine with that as well."

iPad revenue should jump past the Mac in the final quarter of 2014. The tablet is much more seasonally sensitive than the Mac. Last year, for example, fourth-quarter sales of the iPad jumped 85 percent over the previous period, while Mac sales rose by 6 percent sequentially.

After the quarter closed Apple introduced new iPads, including the Air 2 and mini 3, and cut the price of older models by £80, so sales figures are likely to look a lot different in the fourth quarter.



Office for Mac update promised for 2015

Long awaited update coming next year, but Outlook upgrade is here already

BY MARK HACHMAN

It's been four long years since the release of the last version of Office for Mac, and it will be one more before the next version arrives, Microsoft has revealed.

But to tide customers over until then, there's a new version of Outlook for Mac for Office 365 subscribers, plus new iPad and iPhone Office app versions.

The Office app updates mean that iPad and iPhone users can now access and edit Word, Excel and PowerPoint documents on their devices without requiring an Office 365 subscription.

Although Microsoft released the latest version of its email client on 31 October, followed by the new, free iOS apps on 6 November, the roadmap to the next version of Office is the real news.

In the first half of 2015, Microsoft will release a public beta of Office for Mac, which includes Word, Excel, PowerPoint

and OneNote. The company said it would ship the final version in the second half of 2015.

Current Office 365 subscribers will be able to upgrade for free, as expected, and Microsoft said it would ship a "perpetual licence of Office for Mac" (a standalone version) in the same timeframe.

With Office 365 users still stuck using Office for Mac 2011, there has been little incentive to sign up for the suite other than for the excellent Office for iPad apps, OneDrive cloud storage, and free Skype calls.

Microsoft issued an apology of sorts for the delay, noting that it had put the Mac on the backburner while it was



developing mobile versions for the iPad and other platforms.

"Following the release of Office 365 we made the conscious decision to prioritise mobile-first and cloud-first scenarios for an increasing number of people who are getting things done on the go more frequently,"

Microsoft's Office team

said in a blog post. "This meant delivering and continuing to improve Office on a variety of phones (iPhone, Windows Phone and Android) and tablets (iPad and Windows) – brought together by the cloud (OneDrive) to help people stay better organised and get things done with greater efficiency at work, school, home and everywhere between."

Fix for Yosemite's Wi-Fi failings prioritised

Apple puts solution for Wi-Fi issues experienced by customers using OS X 10.10 at top of update agenda

BY GREGG KEIZER

Apple has told developers that the first update to OS X Yosemite will include changes to Wi-Fi, a hopeful sign for customers who have reported that the new OS has crippled their internet connections.

Yosemite 10.10.1, which was seeded to registered developers on 4 November, will include changes to Notification Center and Wi-Fi.

The discussion forums on Apple's support site have continued to accumulate large numbers of messages from users who say their Wi-Fi

connections haven't worked reliably since they upgraded to Yosemite.

Reports of connectivity issues cropped up within hours of Apple releasing Yosemite on 16 October, and have continued to pour in since.

Some users have had success implementing one or more of the seemingly endless suggestions that have piled up on the thread, others on Apple's support site and on third-party blogs. Turning Bluetooth off on nearby Macs and iOS devices has worked for some but not all. Others reported having Wi-Fi

connectivity problems with OS X Mavericks as well, but that installing Yosemite had greatly aggravated them.

As of 3 November, Yosemite was powering about one in five Macs, an update rate that surpassed last year's Mavericks in first-month adoption speed, analytics company Net Applications has said.



Digital wallets make way for Apple Pay

Mobile payments service off to flying start as CEO reveals subscriber figure within first three days of launch

BY JARED NEWMAN

Apple rarely reveals major news at other companies' conferences, but Tim Cook's appearance at WSJD Live was noteworthy for some intriguing snippets he let slip. Apple's CEO used the conference to hint at future plans, give status reports on current products and explain the company's overall strategy.

He announced that within the first 72 hours of the Apple Pay launch in October, customers had activated one million credit cards for the mobile payments service. While that might sound impressive, it's worth pointing out that Apple sold 39 million iPhones worldwide in the last quarter alone.

Cook also revealed that the iPod Classic had been discontinued when the

iPhone 6 and iPhone 6 Plus were unveiled because the company could no longer get hold of parts for it.

Despite Cook's enthusiastic comments about television in the past, he shied away from saying that Apple is working to improve the current TV experience, which could suggest that Apple is still struggling to strike deals with content providers.

Privacy was mentioned during the talk, with several jabs aimed at Google – "We're not Big Brother," said Cook. "We'll

leave that to others." He added that Apple is working on a "Fort Knox kind of thing" to enhance privacy, but didn't go into any further detail.

Nor did he reveal the release date of Apple Watch, just reiterating that it will probably need to be charged up every day.



Apple Watch launch timing pushed back

VP's leaked video message to staff rules out launch date before Chinese New Year

BY CAITLIN MCGARRY

The release date for Apple Watch may still be under wraps but January and February are now out of the running for the "early 2015" time frame Apple had been suggesting.

Angela Ahrendts, the company's senior VP of retail and online stores, told employees in video remarks that the watch will appear after Chinese New Year on 19 February. Website 9To5Mac obtained a manuscript of the message, in which Ahrendts said the next few months will be a "marathon" for Apple Store workers: first, the holiday rush, then Chinese New Year, then the Apple Watch release in spring.

A Valentine's Day release had been rumoured, but Apple is still working to get

app developers on board. If Apple Watch is to be a hit, it will need amazing apps on launch day. The company is looking for an Apple Watch evangelist, according to a job listing posted at the end of October.

Apple is also looking for an iOS app development expert to help third-party developers build Apple Watch apps.

Duties include crafting presentations for the Worldwide Developers Conference, so it looks like we might be seeing plenty of Apple Watch next June.

Apple won't ship a product without a robust app ecosystem, and that could be why the company won't confirm a release date. If Apple is still looking for a point person to guide developers and offer them resources, then the Apple Watch launch might happen later in 2015 than previously predicted.

Meanwhile, according to a report from French Apple site Igen.fr, the gold version of Apple Watch could cost \$5,000, while the steel version could start at \$500. The sports version already has an official price – \$350.



Troubled sapphire supplier settles

GT Advanced Technologies blames Apple for many of the problems that led to its bankruptcy

BY GREGG KEIZER

GT Advanced Technologies and Apple have reached a legal settlement over the breakdown of their partnership deal for the production of the sapphire glass used in the iPhone's camera lens and Touch ID fingerprint reader as well as the iPad and Apple Watch displays.

The partnership, agreed last year, had committed GT, a producer of the furnaces used to generate the sapphire crystal, to produce the sapphire itself at an Apple-owned facility in Arizona. Apple agreed to lend GT \$578m to equip the factory.

The deal unravelled because of cost overruns and production issues. GT filed for bankruptcy protection in October.

The settlement has cut most ties between the two companies by

terminating all previous contracts, and allows Apple to recoup the \$439m it has already lent GT through the payment of a bounty on all sapphire furnaces produced by GT over the next four years, including those at the Arizona factory.

The settlement had initially required GT to keep under wraps several filings with the bankruptcy court, including one that went into detail about the company's collapse, and ordered the destruction of most copies of the filing documents.

It had been anticipated that those documents would tell GT's side of the story and blame Apple for its problems.



And indeed a revised summary filed by GT criticised Apple for ordering poorly performing sapphire-finishing equipment for the factory, for refusing to renegotiate payment for the sapphire when it proved impossible to meet Apple's timetable and spec, and for not equipping the factory with backup power – millions of dollars of production was lost through power interruptions.

The bankruptcy court subsequently ordered that most of the sealed documents must be published.

Apple CEO in gay pride revelation

Company board backs Tim Cook's public proclamation of his sexual orientation

BY CAITLIN MCGARRY

Apple CEO Tim Cook has published an essay in *Bloomberg Businessweek* revealing he is gay. He is the first openly gay CEO of a Fortune 500 company.

A famously private man, Cook said he doesn't think of himself as an activist, but had decided to speak out to help others.

"If hearing that the CEO of Apple is gay can help someone struggling to come to terms with who he or she is, or bring comfort to anyone who feels alone, or inspire people to insist on their equality, then it's worth the trade-off with my own privacy," Cook wrote.

"Being gay has given me a deeper understanding of what it means to be in the minority and provided a window into the challenges that people in other minority groups deal with every day. It's



made me more empathetic, which has led to a richer life. It's been tough and uncomfortable at times, but it has given me the confidence to be myself, to follow my own path, and to rise above adversity and bigotry. It's also given me the skin of

a rhinoceros, which comes in handy when you're the CEO of Apple."

Apple has opposed legislation seen as discriminatory toward the LGBTQ (lesbian, gay, bisexual, transgender, questioning) community. The company supports workplace equality legislation in its home state of California and earlier this year took a stand against Arizona legislation that would have allowed businesses to refuse service on the basis of religion.

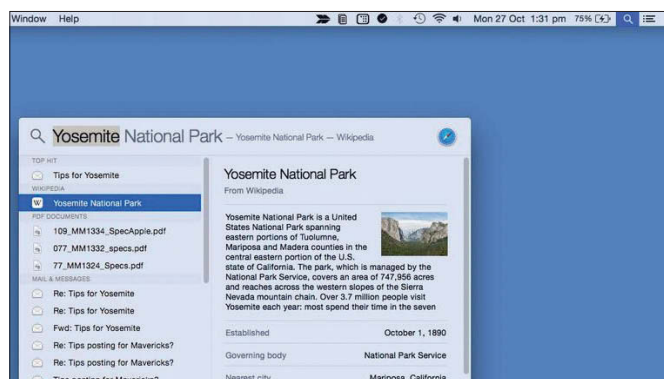
Bloomberg Businessweek editor Josh Tyrangiel said in a video accompanying the editorial that Apple's board of directors supported Cook's decision to publicly announce that he's gay.

Cook said privacy remains important to him and that he will "continue to spend virtually all of my waking time focused on being the best CEO I can be".

40 TUCKED-AWAY TRICKS IN OS X

HEADLINE FEATURES ARE ALL WELL AND GOOD, BUT IT'S THE LITTLE UPDATES AND TWEAKS THAT CAN TURN USING A NEW VERSION OF MAC OS X INTO A JOYOUS EXPERIENCE. HERE WE LOOK AT SOME HIDDEN TRICKS, TIPS, HINTS AND HACKS THAT MIGHT JUST MAKE THE TRANSITION FROM MAVERICKS TO YOSEMITE A WHOLE LOT EASIER

By Keir Thomas



1 Sticky Spotlight

This might be a bug or it might be a feature but give it a try and see what you think. When using Spotlight in Yosemite, you can right-click (or Ctrl-click) the Spotlight icon at the top right of the desktop to make the window stay on top and not disappear when you click outside of it. This way you can grab as much info as you need without accidentally cancelling your search. The Spotlight icon will turn blue to indicate this new sticky mode (or grey if you use the Graphite colour scheme). Subsequently, the only way to make the Spotlight window disappear is to left-click the Spotlight icon. Or if that doesn't work, Cmd-space again.

Strangely, the Notifications icon at the top right will also turn blue if you right-click it, although the Notifications area will still disappear when you click outside of it. Intriguing!

2 Recording output

Ever needed to create a tutorial or walkthrough for something on iOS? Or do you just fancy projecting your iPhone or iPad screen onto your Mac's display?

Previously the only way to do this was with complicated setups involving AirPlay mirroring and third-party software. With Yosemite all you need do is attach the device to your Mac via USB and then open QuickTime Player. Then select **File** → **New Movie Recording**.

QuickTime will default to your Mac's iSight camera (if it has one), but click the small down arrow alongside the record button and your iPad or iPhone will show up as an option.

You haven't got to record anything, and can simply expand the QuickTime Player



window to full-screen for some cool game-play mirroring.

You can also select the New Audio Recording option in QuickTime Player to record only audio on your phone or tablet microphone. Recording video/audio in this works only with Lightning connections and not the older iPod-style cables.

YOSEMITE

3 Import bookmarks

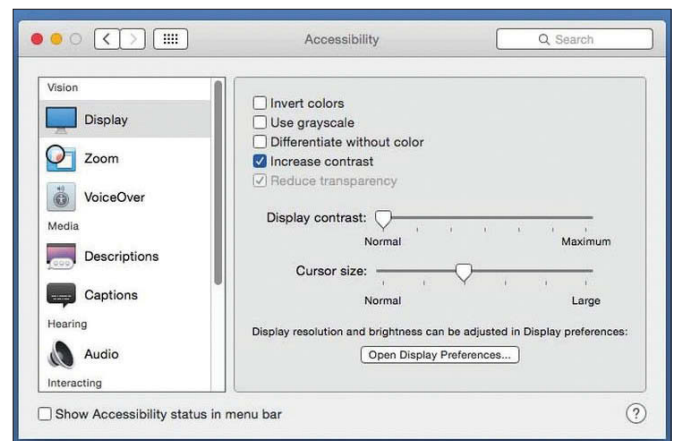
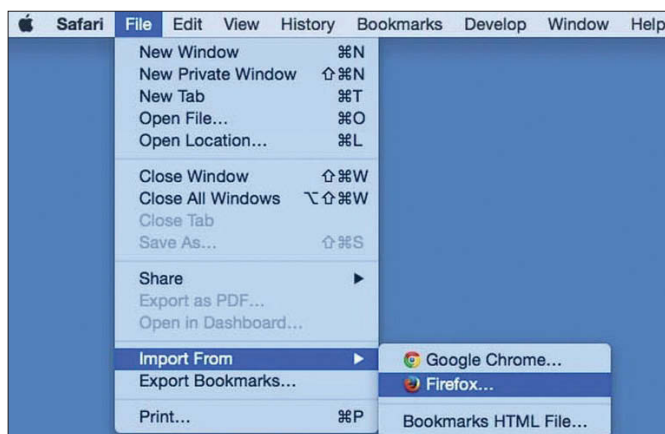
Fancy switching to Safari? It's one of the fastest browsers around nowadays and is a necessity if you want to use such features as Handoff and iCloud Tabs.

Unfortunately, importing your bookmarks into Safari used to be a painful process that involved exporting them first from your existing browser as an HTML file.

In Yosemite, Safari can now nip into the configuration files of Google Chrome or Mozilla Firefox and grab them automatically, making switching much easier.

Just click the options on the **File** → **Import From** submenu.

With Firefox, Safari can import bookmarks, history and passwords. For Chrome it can import only bookmarks and history.



4 Flat, flat, flat

Flat is the all-encompassing mantra for interface designers at Apple right now.

Not to your taste? Open System Preferences, click the Accessibility icon, then ensure Display is selected at the left. Put a check alongside the Increase Contrast option.

The effects will be visible immediately, and this alternative look and feel goes back to the plain and simple appearance of very early releases of Mac OS from the 1980s.

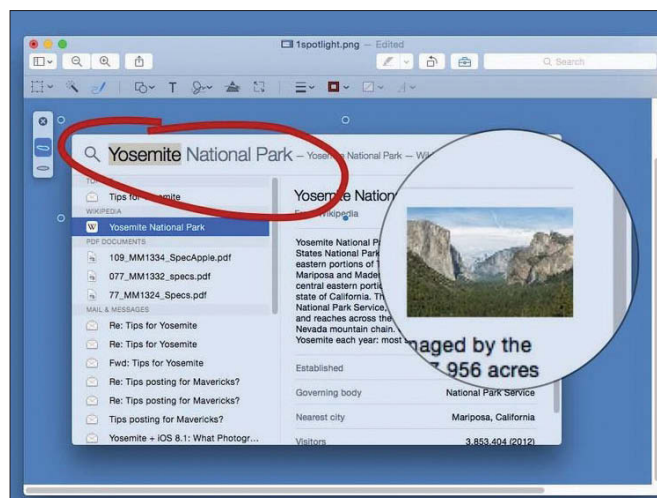
Plain colour wallpapers also might help if the translucency effect annoys you, and don't forget the Dark UI option under the General section of System Preferences.

5 Annotation extras

The always useful Preview app has gained a number of annotation tools in Yosemite. To access the new tools, click the toolbox icon at the right of the toolbar, alongside the search field. The new tools are as follows:

Sketch: The pen icon allows you to roughly draw a shape, which will then be autocorrected to its nearest canonical shape — draw a circle around something, for example, and it'll be converted to a perfect circle. A floating toolbar will appear briefly, offering you the opportunity to switch back to your rough sketch if you prefer. Note that this tool replaces the ability to hand-draw circles and squares.

New shapes: Yosemite lets you add stars and polygons to images or documents in addition to straight-up rectangles and circles. Click the shapes icon and a drop-down list will appear. Shapes



are now dropped onto the canvas and you can move them around by clicking and dragging. The blue handles on each shape allow resizing but there are smaller green handles too that let you adjust the shape or nature of the item. For example, dragging the green handle on a polygon will adjust how many sides it has, and even allow you to create triangles.

Shaded mask: At the bottom left of the shapes drop-down

list that appears when you click the shapes icon on the toolbar is the new mask tool. It lets you define an area of the image for highlighting. It does this by shading out the rest of the image. This is confusingly similar to how the crop tool on some image editors works, but is totally unrelated.

Loupe: If you need to magnify an area of the image to get a clearer look at the detail, you can place a loupe at that spot. This tool lives at

the bottom right of the shapes drop-down list, as mentioned above. You can place loupes over the top of each other to further magnify the image. Again, it might seem that this is simply a magnifying tool offered by Preview to help with editing, but each loupe you place is saved with the image, and other items can subsequently be placed over the top of them.

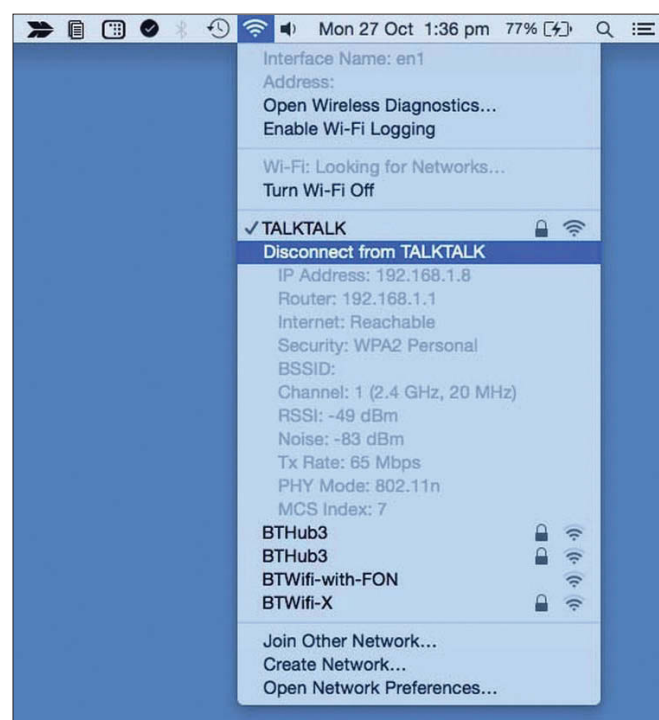
The new tools in Preview are actually part of Yosemite's markup feature. They feature prominently within Mail and are used to annotate attachments (click the arrow at the top right of any image/PDF mail attachment).

However, markup is available system-wide, not just in Mail. This can be demonstrated by adding a picture to a TextEdit or Stickies document — the same markup option will appear at the top right of the image (although curiously the Notes app is an exception to this rule).

6 Network disconnect

Want to disconnect from a wireless network? Before Yosemite appeared, doing this was a bit of a hassle, involving either switching off the Wi-Fi entirely or digging around in System Preferences.

On Yosemite all you need do is hold down Alt (or Option on some keyboards) and click the Wi-Fi icon at the top right of the screen. Beneath the name of the currently in use Wi-Fi base station will be a Disconnect option. This option also appears when you connect to an iPhone/iPad via personal hotspot, although there's no need to hold down Alt/Option here because it appears in the main menu.



11 Preview files

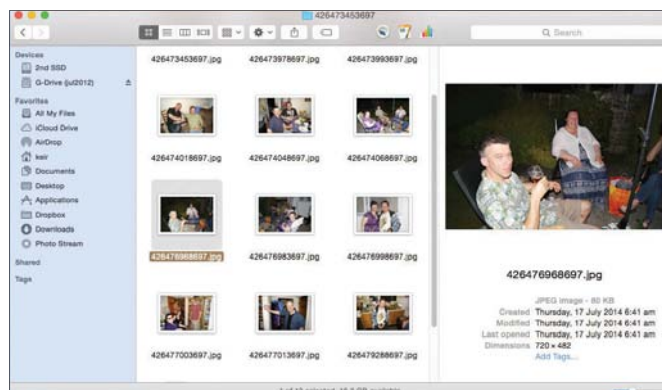
Finder has always offered a preview pane as part of its columns view mode. As you might expect, this shows a preview of the file you have clicked on.

In Yosemite the preview can now be activated in any view

mode – icon, list, column or cover flow.

To activate the preview window, click **View → Show Preview**. Alternatively, tap **Shift-Command-P**.

Click the same button or hit the same keyboard combination to hide it again.



12 Website update feeds

Back in the old days, Safari had the ability to tune into news feeds (in other words, it was compatible with RSS/Atom update feeds provided by some websites). Unfortunately, the feature was then pulled in OS X Mountain Lion.

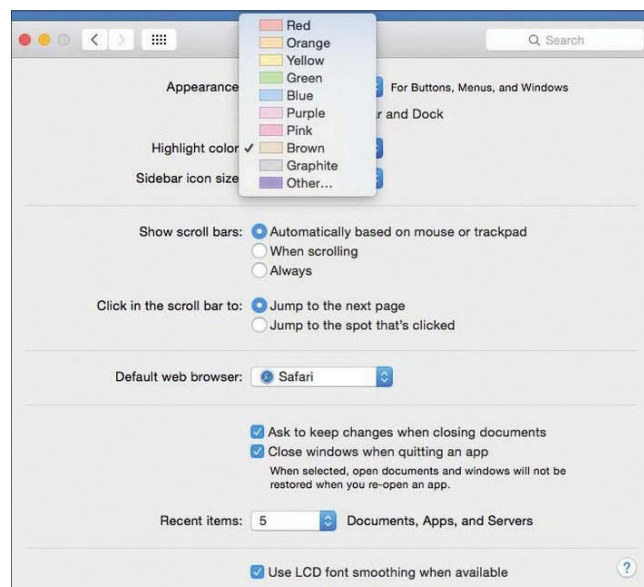
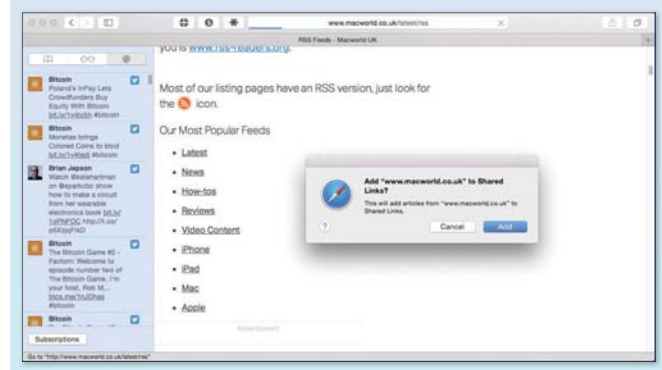
In Yosemite, though, it's back, and integrated very neatly with the shared links feature that pulls links from your friends' Twitter feeds.

Just click on the RSS/Atom link on any web page and you will then be asked if

you want to add the site to your collection.

To view shared links, click the Sidebar button on the Safari toolbar (next to the back/forward icons), and then click the @ icon. Regardless of their source, shared links are sorted by the date and time they were posted.

To unsubscribe from a site, again click to show the sidebar in Safari, then click the @ icon, and click the Subscriptions button at the bottom. Click the X icon to the left of any site you want to remove.



13 Brown and pink in your highlight rainbow

Okay, so this is a really small detail, but it's one worth knowing if you like to truly personalise your Mac's interface. Open System Preferences, click the General icon, then look under the Highlight Color drop-down list.

You'll find Brown and Pink have been added as options in Yosemite. The colour formerly known as Gold has also been renamed Yellow, and most colours are a touch duller than previously. All that glitters...

14 Auto updates

Previously OS X Mavericks let you automatically download major point releases of OS X but would not install them unless you first manually authorised it. However, security updates could be installed in the background without your knowledge.

In Yosemite auto installation of all updates is now possible, including third-party apps.

Open System Preferences, click the App Store button, and put a check alongside Install OS X Updates.

Incidentally, if you ever want to view how many updates are pending, just click the Apple menu at the top left of the desktop, where the number will be listed alongside the App Store entry on the menu. If there are no updates, then no number will be shown.





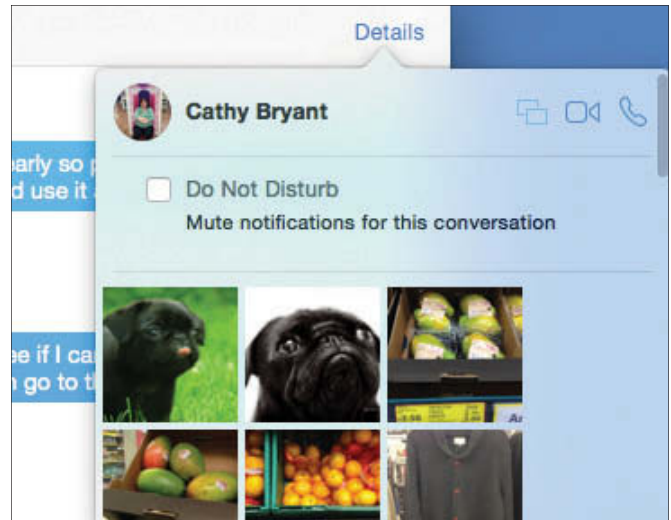
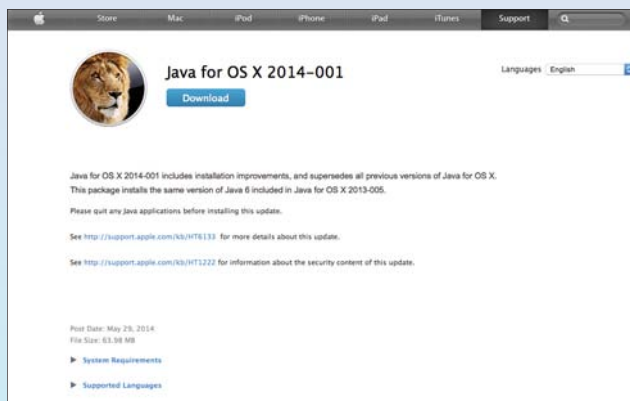
15 Get Java

Considering the security risks presented by the Java Runtime add-on, Apple has perhaps wisely removed it entirely from Yosemite – even if you already had it installed in Mavericks.

However, this decision stops certain apps from running. And there's a twist in the tail because simply installing the latest Java release from Oracle might not provide the solution to getting those apps going again.

Minecraft and Adobe Photoshop CS5 are just two apps that require Apple's version of Java, even though it is a little ancient. The solution is to install both Apple and Oracle's versions, and the two can exist side by side in harmony.

Apple's Java can be found and installed via tinyurl.com/b7u53tm, while Oracle's up-to-date version of Java can be found at tinyurl.com/nkmtmx (download the JRE version).



16 Images from a chat

iOS 8 brought the ability to quickly and easily view all the images sent to you, and by you, in conversation with a particular iMessage recipient. Just tap the Details button at the top right of the screen when chatting.

Well, in Yosemite an almost identical feature comes to the Messages app. Just click the Details button at the top right when chatting and you'll see via a pop-out window all your attachments, sent and received.

Here you can also initiate a phone call, FaceTime call or – another new feature in Yosemite – a screen-sharing session that allows the other person to view your desktop.

17 The great dictator

A dictation feature has been in OS X for a few years now and it's surprisingly accurate. In Yosemite, it has been substantially beefed up with

over 50 new commands, along the lines of 'Select Previous Sentence'.

Additionally the dictation call-out balloon now displays what it thinks are commands,

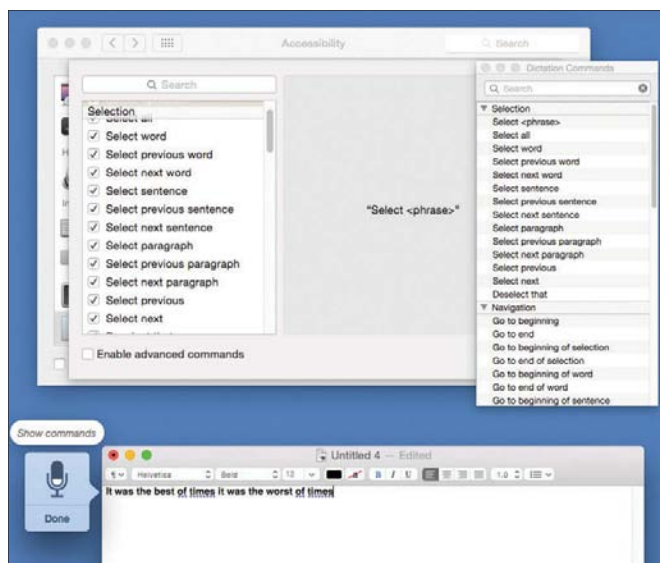
as opposed to dictated text, and you'll see any text interpreted immediately as you speak, as with Siri within iOS 8.

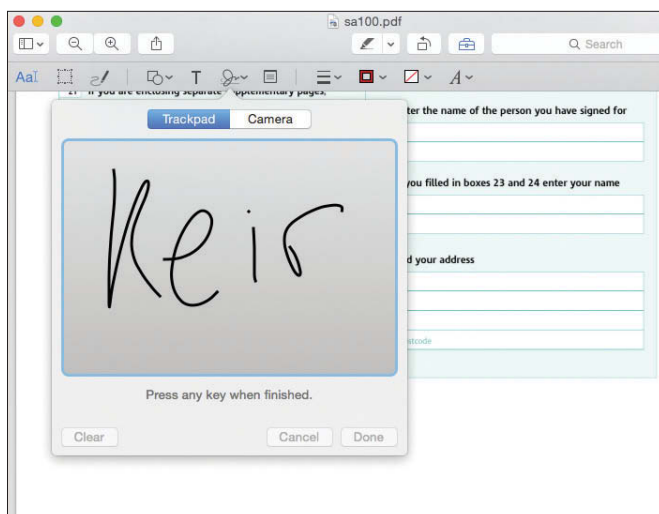
To view the commands you can use, first activate the dictation feature by opening System Preferences and clicking Dictation & Speech. Then click the On radio button. Switch to an app in which you can type (such as TextEdit) and activate the dictation function by tapping the left Cmd key twice (or possibly the Fn key on MacBooks). Then say "show commands". A window will now appear showing all the formatting commands that are possible.

Fans of the old Speakable Items feature that allows users

to control their Mac by saying certain words or phrases might notice its absence in Yosemite, but the functionality is still there. Switch back to System Preferences and click the Accessibility icon. Look to the left of the window and scroll down until you can select Dictation, and then select Dictation Commands. Here you'll see the same list of formatting commands as earlier, but you can also put a tick alongside Enable Advanced Commands to be able to say things like "switch to Microsoft Word" or "open document".

By clicking the plus icon you can add your own spoken commands to run apps, perform a particular keyboard shortcut, and more.





18 Sign using your trackpad

If you've got a finger and a MacBook or Magic Trackpad, then you can now sign PDFs within Preview. Admittedly, the signature you come up with is only likely to be a likeness of the real thing, but it might be enough.

Start by clicking the toolbox icon at the top right of the Preview toolbar (next to the search field), and then click the signature icon beneath (sixth from the left).

Then click Create Signature, ensure the Trackpad tab is selected, and then click to begin as directed. When you've finished you can select the signature from the menu, then drag it to wherever you want it to appear.

If you intend to make good use of this feature then you might want to use a touchscreen stylus, which works just as well on a trackpad as it does on an iPhone or iPad. A biro won't do the business, so don't try it!

19 Bring back the old

If you're not a fan of the new-look Dock in Yosemite, or the system-wide use of the Helvetica Neue font, don't suffer in silence. A couple of hacks will let you move things back to how they used to be.

The first is lucida-grande-yosemite, which will revert the

system-wide font to the older Lucida Grande used in Mac OS X versions 1 to 9. It only works on non-Retina Macs, although the developer is working on a version for all Macs. Download it from tinyurl.com/n8erekg.

Right-click the app once it has downloaded and select

Open from the menu that appears, then wait a few seconds and follow the instructions on-screen.

To swap out the Dock for something more old-fashioned, you can use cDock, which is available at tinyurl.com/mcbuj2s. This can also restore 'colour' icons to the

Finder sidebar, as in older versions of OS X.

Bear in mind that both these apps are unauthorised hacks and so come without guarantees or warranty. However, both include the option to restore things back to the way they were should you encounter any problems.



20 Safari tab suppressor

If you've got an external mouse, then clicking the mouse wheel while the cursor is hovering over a browser tab in Safari will instantly close it (Ctrl-Z will reopen it), even if the tab isn't the currently selected one.

Unfortunately, because there's no way to middle-click using a trackpad or Magic Mouse, this trick is limited to 'PC' mice. However, adding middle-click capabilities to any pointing device is possible via apps such as Better Touch Tool or MagicPrefs.



21 Superior Safari searches

Put simply, Safari learns when you use the search field within any website. Subsequently you can use the site's search feature direct from Safari's URL/search bar without having to visit the site first. Just type the name of the site and your search query, then



select the search option that appears in the pop-out window beneath.

For example, to set this up for amazon.co.uk you would visit the site, use the search

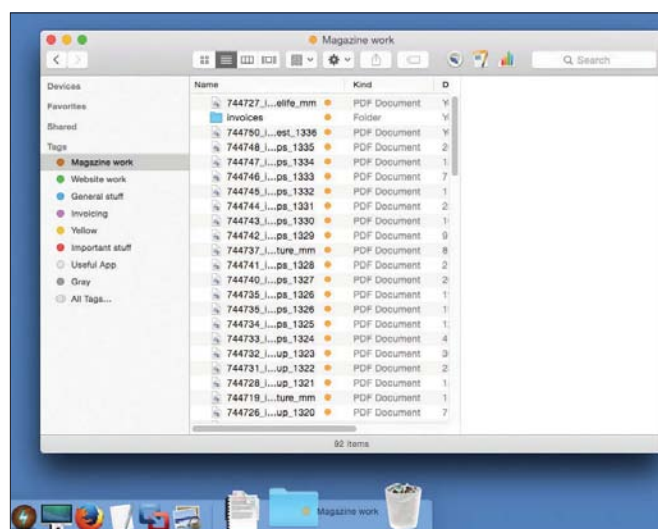
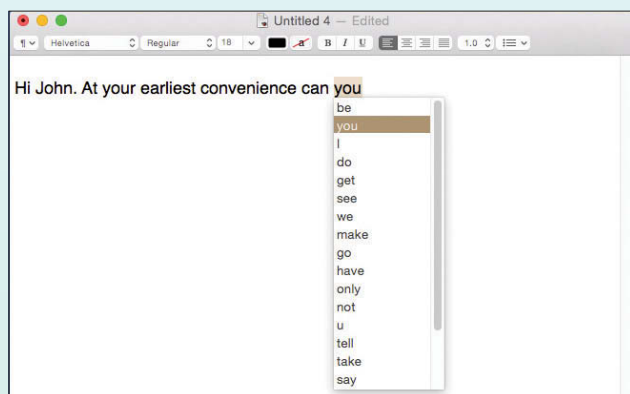
feature to search for, say, 'Sherlock Holmes', and then in future just typing 'amazon Sherlock Holmes' into Safari will show an option to search amazon.co.uk for Sherlock Holmes. On some sites you might not even have to do a dummy search first because Safari will figure it out all by itself. It's a subtle feature, but useful.

22 QuickType in Yosemite

Kudos to the iDownload blog for spotting this one. In some OS X apps like TextEdit it's been possible for a long time to hit Esc while typing a word (in some apps Alt-Esc) to have OS X guess the word you're starting to type. A list will appear and you can select by clicking one of them. It's pretty cool.

In Yosemite this feature has been expanded to something very close to iOS 8's new QuickType, which attempts to guess the next word you want to type. Type 'hello', then space, and hit Esc (Alt-Esc in some apps), and OS X will list possible next words. You might also be able to click *Edit* → *Complete*.

We don't know if this is tied into iOS 8's QuickType, which learns from what you type. We suspect not. But it's fun to play with, if a bit clumsy.



23 Turn tags into stacks

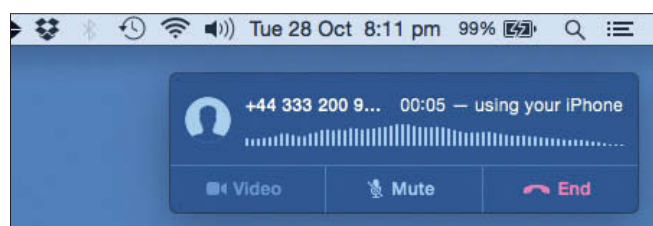
Stacks are the special folders at the right of the Dock that spring up when clicked. It's always been possible to drag your own folders there to create your own stacks, but in Yosemite this feature is extended to tags – the colour-coding system introduced with the previous version of OS X

that allows you to organise your files.

Just drag a tag from where they're listed in the sidebar of a Finder window to the right-hand side of the Dock. A space should open up for you to drop the icon, and clicking on that stack in future will show only files or folders that use that particular tag.

24 Keypad keytones

If you're in the middle of a phone call using your Mac and are asked to enter information using your telephone keypad, such as when you're using online banking, just type the numbers using your Mac keyboard. They'll automatically sound as standard DTMF tones, although you may need to click first on the call window at the top right of the desktop to ensure it has focus. And did you know that you can turn the floating call window into a standard window, complete with close/minimise buttons, simply by dragging it away from the corner?



25 Maximise like old times

Clicking the green blob at the top left of windows in Yosemite switches them to full-screen mode, but that might not be what you want.

If you long for the old behaviour of windows sliding to a larger size to make their contents more visible, hold down Option (Alt on some keyboards) when clicking the button. Alternatively, double-click the titlebar/grey bar at the top of the window (assuming you haven't got the Double-Click to Minimise

option set within the Dock panel of System Preferences).

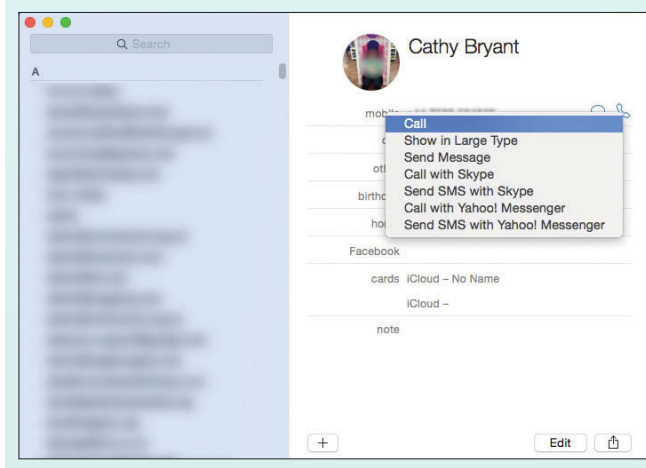
With Safari you'll need to double-click the spaces between the icons and URL field. Note that this tip doesn't work with some apps, including Microsoft Office.



27 Dial or SMS from Contacts

In Yosemite the Contacts app becomes a lot more useful because you can use it to initiate phone calls, assuming you have your iPhone logged into the same iCloud account as your Mac and it's on the same Wi-Fi network. Just click the heading alongside the number you want to dial, and select Call from the menu that appears. The FaceTime app will open on your Mac and attempt to make the call. You can also select Send Message, which will send an iMessage or standard text message, depending on whether your recipient has an iOS device – SMS sending requires iOS 8.1 to be installed on your iPhone.

Incidentally, your missed call history now automatically syncs between your phone and your Mac via iCloud, so you don't have to fish your phone out of your pocket to see what that missed call was. Instead, just start FaceTime and look at the recent call list for audio. If you want to remove an entry from the list, just right-click or Ctrl-click it and select the Delete option from the menu that appears.

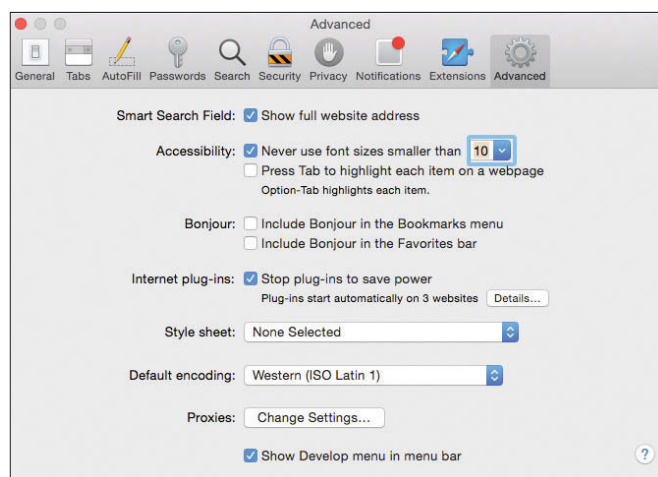


26 The full URL monty

In Yosemite Safari shows only the base URL of a site – a wise tweak designed to avoid users being taken in by phishing scams where the URL is obfuscated. In other words, if you're visiting macworld.co.uk/this/page/that/page, then all you will see

in the address bar is macworld.co.uk.

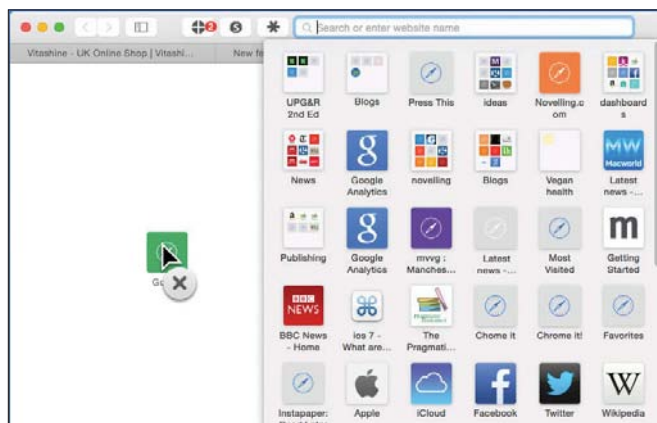
If this isn't what you want, Safari can be configured to show the whole URL. Hit Cmd-, (comma) to open its preferences dialog box, then click the Advanced icon and put a check alongside Show Full Website Address.

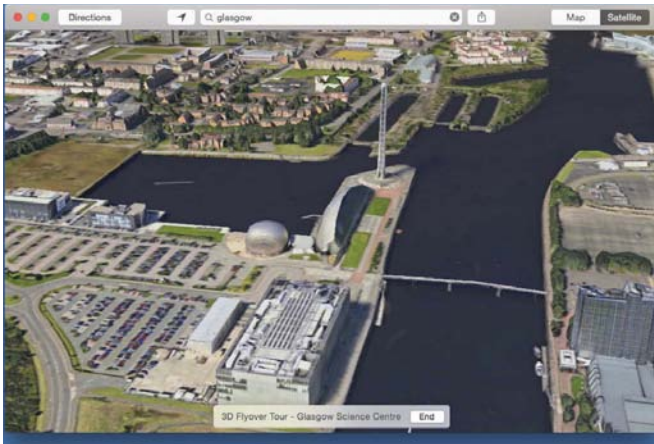


28 True website favourites only

Clicking in Safari's URL/search bar in Yosemite shows sites from your Favorites toolbar, as well as recently accessed sites. If there's any site that you don't want to be listed there, simply click and drag it away from the drop-down list. Once you release the mouse it'll be deleted in a puff of smoke. If you change your mind mid-drag, just tap Esc to cancel the procedure, or drag the icon back into the fold. And if you change your mind after you've deleted something, just tap Ctrl-Z to undo.

The bookmark icons can also be rearranged by clicking and dragging them to new positions.





29 A chopper for Maps

In 2012 Apple introduced its own mapping solution and demoed Flyover, which allows tours to be taken of various cities as if you're in a virtual helicopter. In Yosemite this feature comes to the built-in Maps app. Just use the search function to find a compatible city (Manchester, Leeds, , London, and so on) and then click the pin marking the place. In the pop-out window

click the information icon, then in the second pop-out window select the Flyover Tour button.

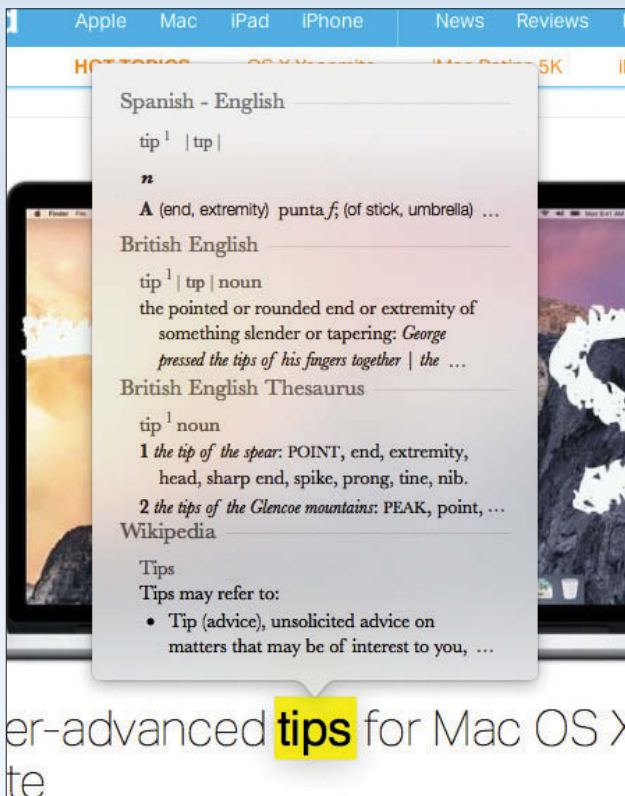
Incidentally, if you're wondering what happened to the hybrid maps feature – where you can view satellite imagery with roads and place labels superimposed on top – just switch to satellite imagery by clicking the button at the top right, then click Show at the bottom left, and then Show Labels.

30 Translate to and from Spanish

The Dictionary app in Yosemite has gained several new languages. You can activate them by opening the app, hitting Cmd-, (comma) to open the Preferences panel, then putting a tick alongside them (drag them up and down to rearrange the order in which they appear during lookups).

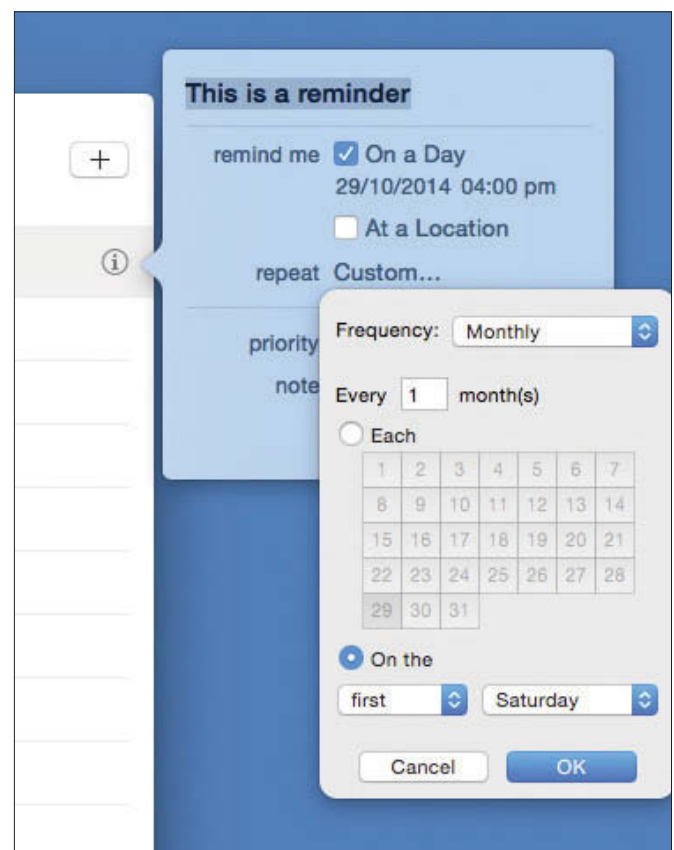
New to Yosemite is a Spanish/English dictionary, and also Turkish, Portuguese, Thai and Russian language dictionaries.

Once the Spanish dictionary is activated, you can look up any word in most apps by right-clicking it and selecting the Look Up option, or by hovering the mouse cursor over it and tapping Ctrl-Cmd-D.



31 Repeat reminders

It's always been possible to repeat entries within a Reminders list but up until now the choices have been primitive and limited to every day, week, fortnight, month or year. In Yosemite you can set pretty much any kind of repeat period – for example, repeating only on certain days of the week, or repeating every three days, or repeating on the first Saturday of each month, and so on. Just click the information symbol alongside a reminder when you create it, then put a tick alongside On A Day, and then click Custom from the Repeat drop-down list. How it works is self-explanatory.



32 Instantly switch to mini-player

When you have music playing within iTunes, clicking the small album art icon next to the currently playing track title at the top of the window will instantly switch iTunes to the mini-player window. If there's no album art associated with that particular track, a musical note icon will appear there instead, but this trick will still work.

Hold down Option while clicking and you'll leave the main iTunes window visible while opening the mini-player. Hold down Cmd and you'll open a floating window showing a large version of the album art, complete with QuickTime Player-like controls at the bottom. Right-click the album artwork in this window and you'll see options to make the artwork bigger or smaller, or even make it expand to the full height of the desktop. Neat!



33 Dark shortcut

Opening up System Preferences is the only apparent way to switch to the all-new Dark interface mode. Yet switching to Dark is something you might want to do quickly as the sun goes down each day, for example.

Fortunately, a Redditor with the handle abspam3 has discovered a hidden way of doing so. Setting it up is a little involved but it subsequently works a treat.

Start by opening a Terminal window. You'll find Terminal in the Utilities folder of the Applications list within Finder.

Then copy and paste in the following code, which should be entered as a single unbroken line:

```
defaults write -g _HIEnableThemeSwitchHotKey 1
```

Then log out via the Apple menu, and log back in again. Once you've done that, you'll be able to switch instantly between Dark and non-Dark

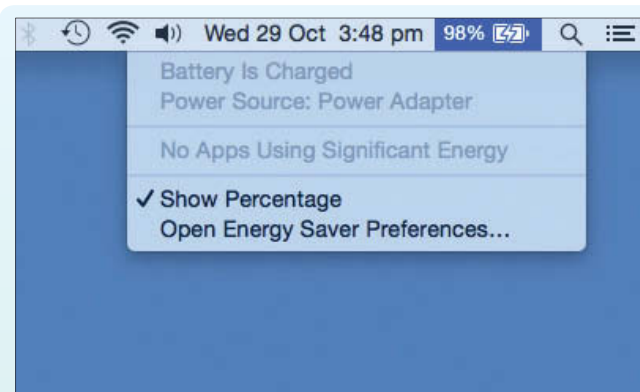
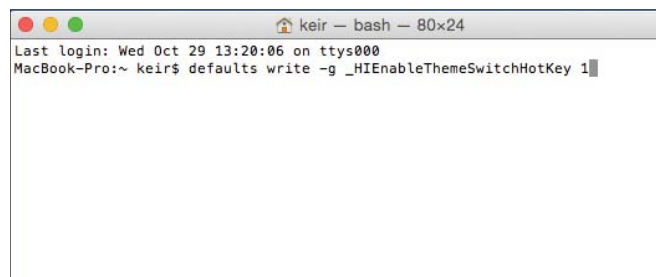
modes by tapping Ctrl-Alt-Cmd-T (on some keyboards Ctrl-Option-Cmd-T).

If you want to deactivate this feature, again open a Terminal window and type the

following (which, like the enabling code, is a single line):

```
defaults delete -g _HIEnableThemeSwitchHotKey
```

And then log out and back in again.



35 Re-energised energy levels

Clicking the power icon at the top right of the desktop to see which apps are eating battery power on MacBooks used to take several long seconds under Mavericks, but under Yosemite it's virtually instant. To be honest, we've no idea if this is true for all MacBook models, and it's impossible for us to check, but if you stopped using this feature because it simply took too long, why not give it a second look?

34 Send audio messages

The Messages app in Yosemite gains a little microphone icon alongside where you type. It allows you to send short audio clips to other iMessage users.

Just click the icon, speak, and then click the red square button to end the recording. Then click the Send button. There's no way to preview the recording nor is the audio

quality great – it's only slightly better than a mobile phone – probably because the audio is compressed to make sending and receiving quicker.

Recipients using iOS 8 devices will see the audio files as waveforms along with a play button. Those using earlier versions of iOS will be told they have an audio attachment that can be tapped to play.





36 Do not disturb

After a week or so of making/receiving calls and texts via your Mac, you may find it's not something you want. Turning off both features is not entirely obvious, though.

Turning off making/receiving phone calls can be done by opening FaceTime on your Mac, pressing Cmd-, (comma) to open the Preferences dialog box, and removing the tick alongside iPhone Cellular Calls.

To turn off text messaging, open your iPhone's Settings app, then tap the Messages heading. Tap the Text Message Forwarding heading, and tap the switch alongside the name of your computer.



37 Work easier with network shares

Here's one for anybody whose Mac is on a network with Windows computers, or other Macs that share files via the file sharing function within System Preferences.

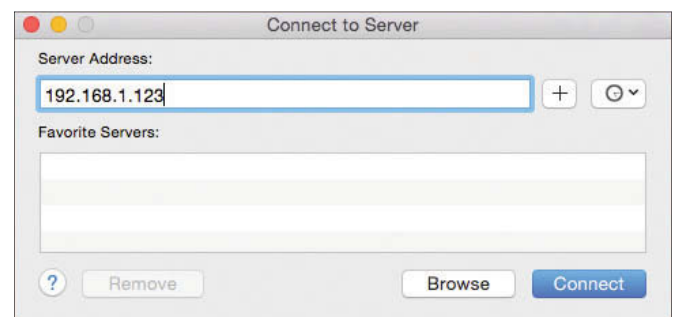
Up until Yosemite, clicking Go → Connect to Server within Finder and then typing a bare IP address or host name into the dialog box would cause Finder to assume you wanted an AFP connection – Apple's old file sharing technology, rarely used nowadays.

Yosemite's Finder assumes

you want Windows file sharing (also known as SMB), which is used nearly everywhere. So all you need do now to access a shared folder on another computer is open Finder or click the desktop, tap Cmd-K, and then type the IP address

or host name of the computer you want to connect to, without the need to precede it with 'smb://', as you used to have to.

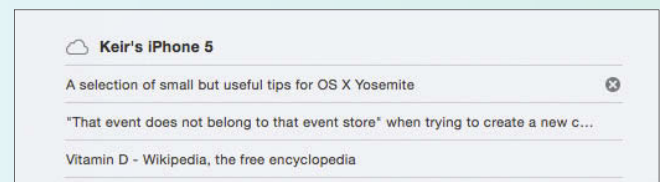
And if you have to make an AFP connection, just precede the address with 'afp://'.



38 Close tabs on iOS devices

If all your iOS devices and your Mac are signed into the same iCloud account, Safari's Show All Tabs feature on your Mac (View → Show All Tabs) will show any tabs open on your iPhones, iPads, iPod Touches or other Macs.

What's new to Yosemite is



that an X will appear at the right-hand side if you hover the mouse over any of these tabs. Clicking the X will close that tab on that device.

Considering it can be painstakingly annoying to prune no longer needed tabs in Safari on an iPhone/iPod touch, this is a godsend!

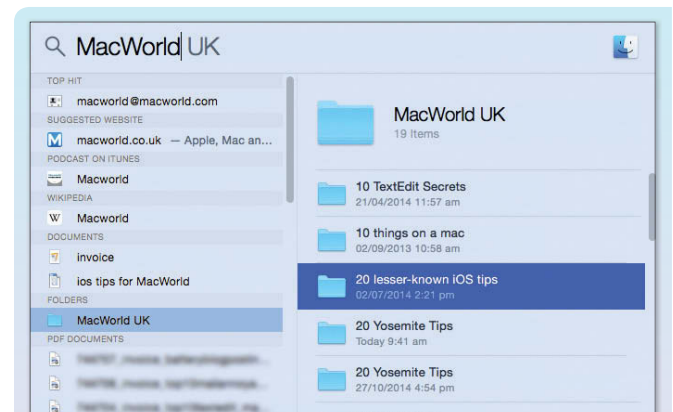
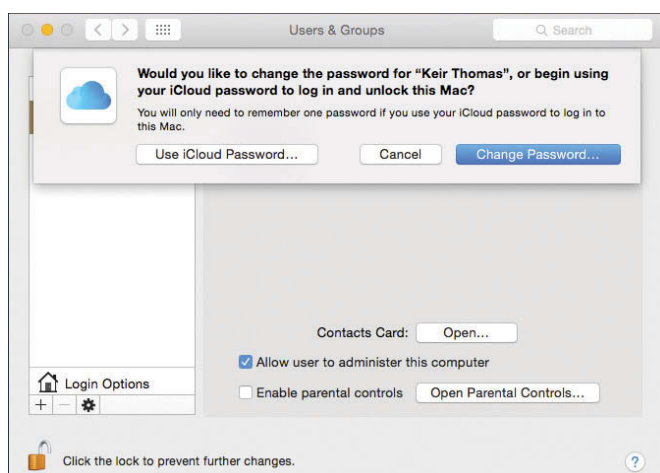
39 Unify your passwords

In Yosemite you can log in using your iCloud password, rather than a separate password just for your Mac.

To activate this feature, open System Preferences, then click

the Users & Groups icon. Then click the padlock icon at the bottom left to unlock the preferences system, and click the Change Password button.

Finally, click the Use iCloud Password button.



40 Look in folders using Spotlight

If you search for something using the new Spotlight in Yosemite, a folder may be shown in the list of results. What's not obvious is that you can use the cursor keys to highlight this folder, then tap the Tab key to move the highlight over to the right of the window so you can select an item within it. Hitting Enter will open any highlighted entry. Tapping Shift-Tab will move the highlight back to the left-hand column.

THE COMPLETE GUIDE TO



OS X YOSEMITE



GET YOUR MAC READY FOR YOSEMITE

NOW THAT APPLE HAS MADE OS X YOSEMITE AVAILABLE FOR DOWNLOADING ONTO MACS, HERE'S HOW YOU CAN GET IT ONTO YOURS – ALONG WITH A LIST OF THE 10 CRUCIAL THINGS YOU SHOULD DO FIRST

By Karen Haslam

Apple has at last released the final version of its new Mac operating system, OS X Yosemite, and made it available for download for free. Flatter, and with a minimalist appearance reminiscent of last year's iOS 7, it also offers new continuity features as well as upgraded apps and other changes. But before you get busy downloading and installing this must-have, take our complete tour so you can be up and running immediately after installation without any irritating snags to iron out.

How to download and install it

You can now find Yosemite on the Mac App Store. To download and install it, simply open the Mac App Store on your Mac. Before you do, though, you should prepare your Mac for the update by following the steps listed here.

It could take several hours to download and install Yosemite. So while you're waiting, turn to page 12 to read our 40 ultimate Yosemite tips.

How to prepare your Mac

Just as with its Mavericks (OS X 10.9) operating system, Yosemite is free and pretty easy to install. However, as with any big update to OS X, you should first complete a few tasks to ensure that your Mac is ready to go.



It's worth doing a bit of housework before installing any new operating system. Here are the 10 things for your must-do-first list for Yosemite.

1 Find out if your Mac will be able to run Yosemite

This one is a biggy. If your Mac can't run it, then I'm afraid there's no new software update for you. Don't panic, though, Apple has kept the list of supported Macs the same as those supported for OS X Mavericks (see page 27), so if you're already running Mavericks you'll be able to get Yosemite.

You can check the specs of your system by clicking on the Apple logo on the top left of your screen and selecting About This Mac. This will tell you which version of the OS is installed on your Mac.

2 Make sure you have enough RAM

If your Mac is on the list of supported machines, you are unlikely to run into any problems, but it's worth checking that you also have enough RAM to run Yosemite. Apple suggests that you'll need at least 2GB of RAM, although 4GB is advisable. If you have less than 4GB of RAM in your machine it might



be time to consider upgrading to a new Mac, or installing more RAM.

If you do decide to add RAM, make sure the RAM you choose is compatible. Read about how to update the RAM in your Mac at tinyurl.com/Lmf4ybg.

3 Ensure you have enough space

Apple says you should have 8GB of free space on your Mac's drive before installing a major OS X update, but we recommend 15- to 20GB. The Yosemite installer is 5.16GB, and you'll need to allow some room for temporary files.

Go to tinyurl.com/k6xjzr to find out how to free up space on your Mac.

4 Get access to the Mac App Store

If you are still running the Leopard OS and don't have access to the Mac App Store you really, really, really need to upgrade. Yosemite is available only via the Mac App Store, which arrived with Mac OS X 10.6 Snow Leopard. You can still get hold of a copy of Snow Leopard from Apple for £14 – go to tinyurl.com/khgesha to find out how.

5 Update your software

Install the latest OS updates to Snow Leopard, Lion, Mountain Lion or Mavericks (whichever you're currently running) before upgrading to Yosemite.

To find out if you are up to date, click on the App Store icon in the Dock and select Updates. You can also click on the Apple logo at the top left of your screen and select Software Update from there.

6 Update your third-party apps

You need up-to-date third-party apps, too. App updates may include changes required for upgrading to Yosemite; if you don't run the updates they may not work properly once you've updated the OS.

To update apps bought from the Mac App Store, launch the App Store app and click the Updates button in the toolbar. Then click Update All, entering your Apple ID and password when prompted.

For apps purchased elsewhere, you'll need to manually install updates. You can check if there are updates available from the application's menu; in Microsoft Word, for example, it's a case of clicking on *Help* → *Check for Updates*.

7 Ditch old software

If you're still running Snow Leopard (OS X 10.6), you may be using a few PowerPC programs – software that was never updated to run natively on Macs with Intel processors. Apple used to provide software called Rosetta that translated PowerPC code so it could run on Intel Macs. When Snow Leopard launched, Rosetta was no longer installed by default, but it was possible to download and install Rosetta if you wanted to run a PowerPC program. However, Apple killed off Rosetta completely when Lion (10.7) was released, and it remains unavailable to this day.

Any PowerPC apps you have won't work when you update your system, so you'll either need to ditch them and find alternatives – or stay in the dark ages

and run very old software. To find out if any of your applications are PowerPC programs, launch Snow Leopard's System Profiler utility (in Applications/Utilities), select Applications (under Software in the sidebar), and then click the Kind column header, which sorts the list of applications by processor type. Any programs listed as PowerPC will not work under Yosemite; they won't even work in Mavericks, Mountain Lion or Lion.

8 Make sure your Mac is healthy

Your Mac needs to be healthy before you install a big update to the OS. To check this, open Disk Utility (in Applications/Utilities), select your startup drive from the list on the left, click the First Aid tab to the right, and then click Verify. If Disk Utility finds problems, you'll need to boot from a different volume to perform repairs using the Repair Disk button. Boot into recovery mode (by holding down Cmd-R at startup) and use Disk Utility from there to perform the recommended repairs.

You can also run the Apple Hardware Test (for Macs older than June 2013) or Apple Diagnostics (for Macs from June 2013 on). Both check your Mac for other hardware issues, such as bad RAM.

9 Back up your Mac

Before updating to Yosemite we recommend that you back up your Mac, and test that the backup works before you do anything else.

You can use Apple's Time Machine software to create a backup that will recover your Mac exactly the way you left it prior to the install. There are alternatives to Time Machine, including SuperDuper or Carbon Copy Cloner, both of which will create a bootable clone backup of your Mac.

10 Set up iCloud

When you install Yosemite, you are likely to be pestered for your iCloud details because these days it is heavily integrated into many apps and system services. Make sure that you are logged into iCloud and enable syncing before you start updating the OS and things should go smoothly.



Apple unveiled Yosemite (OS X 10.10), the new version of its Mac operating system, during its Worldwide Developers Conference 2014 keynote event in June, releasing the software to developers in beta format for testing before launching a public beta programme. Now, Yosemite is ready for everyone. But how do you know it will work on your Mac?

The earliest compatible Mac OS is Snow Leopard, which was the first operating system to give access to the Mac App Store – and that’s where Yosemite has to be downloaded from. If you have an older OS, then you may

**Yosemite will run on
the following Macs models:**

Xserve: Early 2009

The system requirements for OS X Yosemite are identical to those for

Xserve: Early 2009



YOSEMITE INTERFACE CHANGES

By Jason Snell

For a few years there, it felt like major changes in the look and behaviour of OS X were imminent. The conventional wisdom during the era of the Lion and Mountain Lion operating systems was that Apple had placed OS X on a collision course with iOS, and the two would inevitably have to come together to form – well, if not a single operating system, then two variations on a single theme.

In the past year, though, it's become clear that Apple no longer believes in that approach – if it ever truly did. iOS 7 and 8 have taken big, bold steps in one direction while OS X Yosemite has taken smaller steps in a different direction. Apple appears to have a very clear and distinct future in mind for the Mac – even though some of today's Apple hardware might not be up to delivering that vision.

The Retina age

During 2012's Worldwide Developers Conference, Apple unveiled the 15in MacBook Pro with Retina display, and a few months later the 13in models of the MacBook Pro arrived. But two years into the Retina Mac era, there are still no Retina MacBook Airs or affordable external Retina displays, though a 27in iMac with Retina 5K display was also announced at the Yosemite launch.

Apple knows that in the next few years, every computer display in use will be at Retina resolutions. And Yosemite's new design feels like it was built for Retina displays: the thin Helvetica Neue font replaces the long-serving but chunky Lucida Grande as the system typeface. Transparency is more present than ever before, inside app windows and

Lucida let go The font change from Lucida Grande (upper) to Helvetica Neue (lower) is most noticeable on the menu bar.



underneath toolbars and even on the login screen itself.

Yosemite is simply gorgeous on a Retina MacBook Pro display. So here's hoping Apple rolls out more high-resolution Macs in the near future. If it does, Yosemite's refined look will be able to shine across even more products.

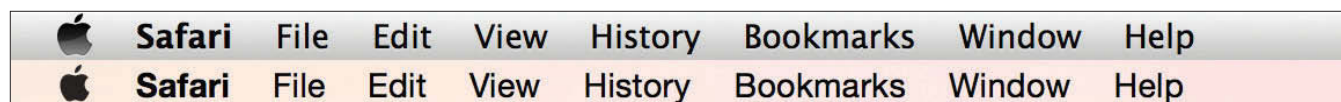
Beyond the system font, the most obvious visual change in Yosemite is that the grey light-to-dark gradient atop most windows is now much more subtle – so much so that I didn't even register that I was looking at a gradient.

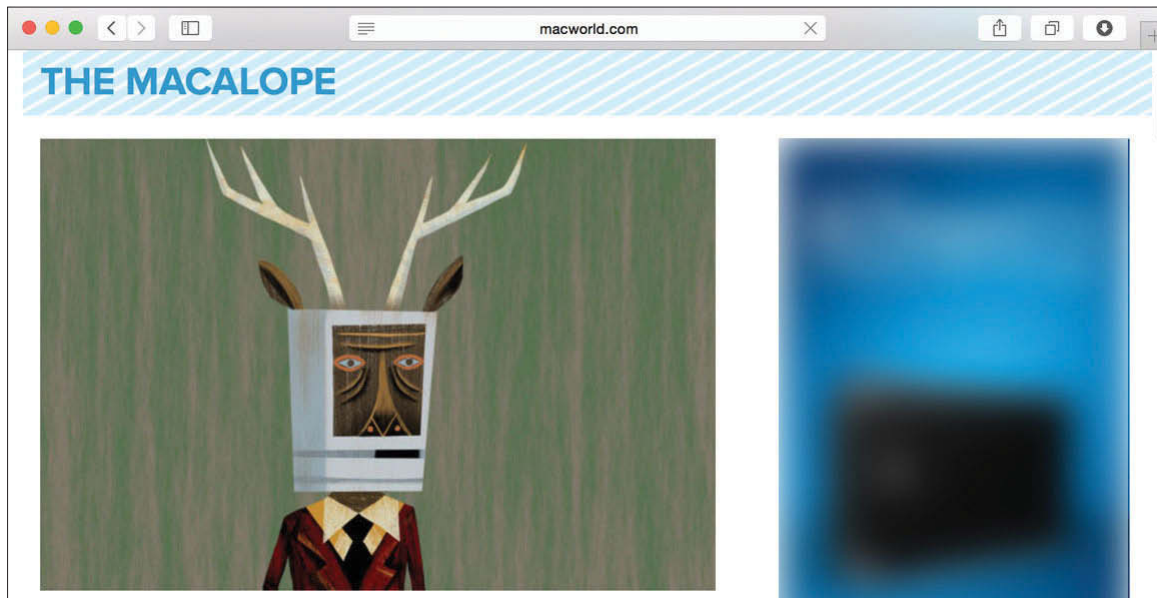
In addition, the red, yellow, and green traffic light buttons on the corners of windows – the ones you use to close, minimise or zoom that window – have been stripped of the shading effects that

Back to flat The traffic light buttons.

made them look like pieces of candy. They're just flat circles now.

When you move your cursor over them, you'll find the same X in the red circle and the same minus sign in the yellow circle as in Mavericks. However, the green circle no longer displays a plus sign; instead, it shows the two-headed arrow that indicates full-screen mode. If you want to zoom a window's size in and out, old-school-style, then you'll now need to hold down the Alt key before clicking the





Half-height
The title bar has been dramatically reduced in Safari and is only half as deep.

green button – or just double-click on the window’s title bar.

Darth Vader will be a fan of Yosemite, because it allows you to darken the menu bar and the Dock. Enabled by a checkbox within the General pane of System Preferences, this feature makes the menu bar dark, with light text, and the Dock’s background darkens substantially as well. Menus are now darkly translucent, and drawn with light text.

However, when I checked the box, nothing else on my screen changed. It would make sense for predominantly dark-on-light apps to switch to a dark-on-light colour scheme in this situation, but none of the apps I was running changed in the least. It looks like apps can detect whether that checkbox is engaged, but none of the apps I was running (including

Apple’s own) bothered to do so. Lord Vader will not be pleased by a mere menu bar makeover. For a Mac to truly turn to the dark side, apps need to be able to follow suit.

Vertically challenged

Just about every Mac uses a display that’s a lot wider than it is tall. So in the Mac interface, height is at a premium, while there’s width to spare. This, incidentally, is why I don’t understand why people leave their Dock visible on the bottom of the screen – I always pin mine to the right-hand side. Yosemite’s design tries to fit more stuff on your screen by cutting the height of many window title bars in half.

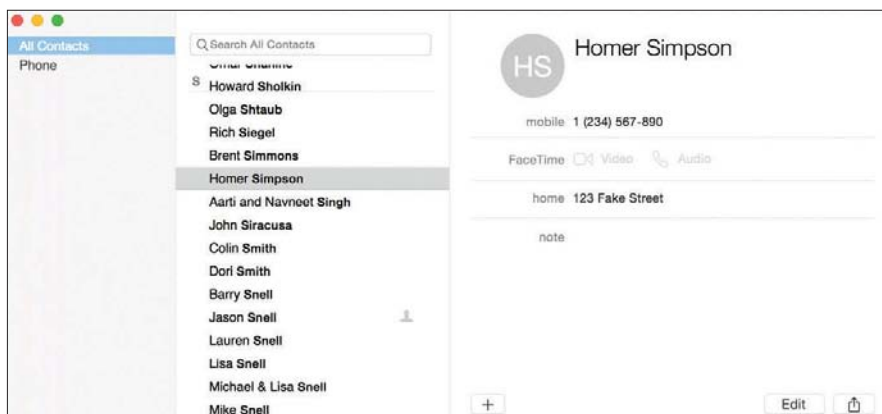
This has a ripple effect on other interface elements. Take, for example, those traffic light buttons that were

previously on the same level as the centred name of the window and, far off to the left, the double-headed arrow icon for full-screen mode. Now those buttons share space at top of windows with other interface elements.

In Yosemite’s version of Safari, the three buttons are on the same level as toolbar elements such as the next/previous page button, the address/search bar, and the like. In fact, in Safari the name of the window – and, therefore, the title of the page you’re viewing – is completely gone.

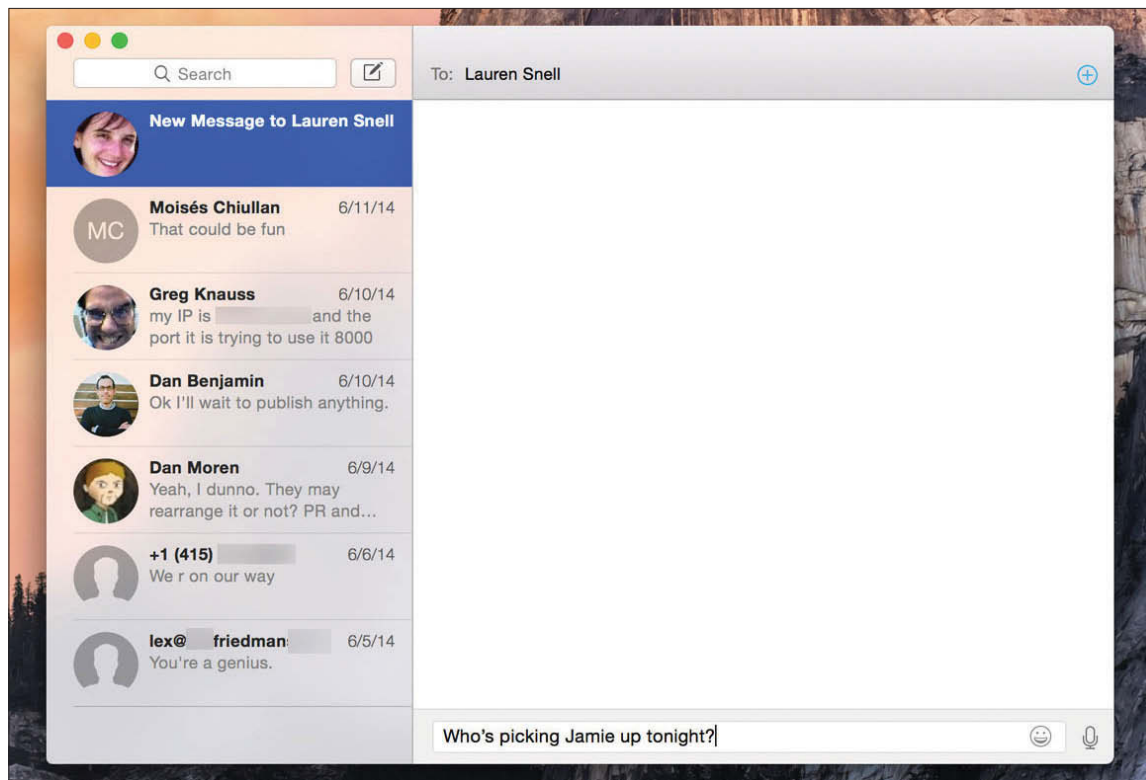
In Contacts, meanwhile, the entire top window bar is gone. The traffic light buttons remain at the top-left corner of the window, but that’s now at the top of the leftmost visible pane of the application. They hover over the translucent Groups column until you choose *View → Hide Groups*, at which point they hop over to the top of the Contacts column, which turns from white to translucent in the process. A thin band across the top of the Contacts window is still draggable, but it’s not what you’d call a traditional Mac title bar.

This design isn’t consistent across all



Bar none In many Yosemite windows, the menu bar has vanished, and the traffic light buttons move around.

Sidelight The sidebar in Messages is translucent, showing the items behind it.



of Apple's apps either. The traffic light buttons share space with the toolbar in the Calendar, Maps, Messages and Reminders apps. Which prompts the question: if a bar contains no title, can it still be called a title bar? Yet Mail, TextEdit, Preview and iWork all look the same as they ever did.

I don't really mind the trend. I use an 11in MacBook Air every day, so I know about cramped working environments. By merging the toolbar and title bar, the approach saves some precious vertical space. Unfortunately, an overly cluttered title bar might be hard to reposition on screen if you can't find anywhere to click that isn't covered by a button. And

Away from base The Spotlight feature is now disconnected from its place in the menu bar.

while those old title bars featured an awful lot of empty space, sometimes such space can be good. Yosemite's new look can lead to situations where windows feel more cluttered.

I have to admit I'm nonplussed about the disappearance of titles from the top of many windows. In apps that never really have more than one important window (Calendar and Maps come to mind), the title is unnecessary; labelling the Calendar window with the word Calendar seems pointless. But in many other contexts, the title of the window imparts important information, and there's a danger that some of that could be lost if Apple takes this approach too far. It's something worth keeping an eye on, especially given the radical changes Yosemite has in store for Safari.



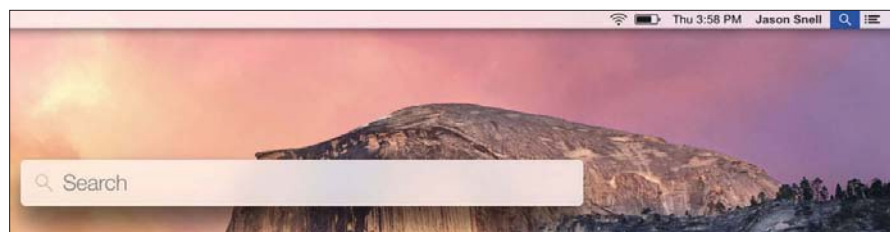
Material change More plastic, less metal.

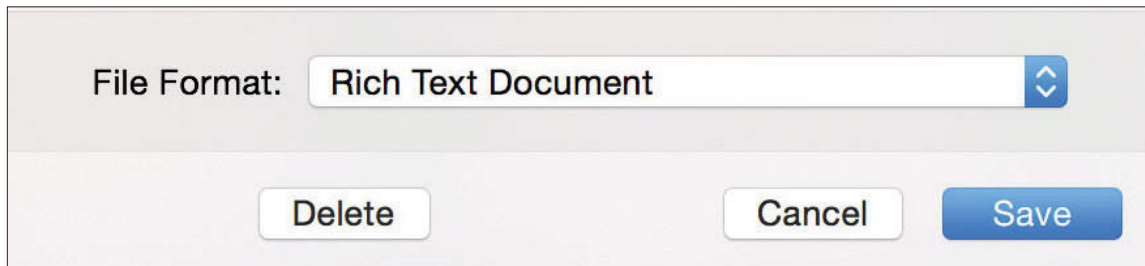
Subtle changes

As with most OS X releases, Yosemite has its share of subtle design changes. The most notable is probably the system's increased use of translucency, in which some interface elements are semi-opaque, allowing a blurred-out version of whatever is behind the window to show through. It's a style that iOS uses in abundance, and it's now sprinkled here and there in Yosemite.

The Messages sidebar, for instance, is translucent. It's subtle, so it doesn't affect readability, but it doesn't really seem to serve any useful purpose. It's a light design flourish that isn't offensive, but it's not particularly bold either.

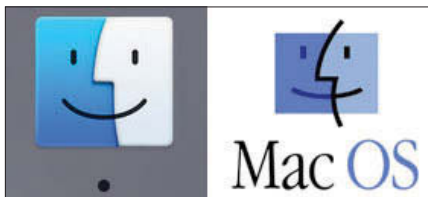
Up in the (still translucent) menu bar, the bars on the Wi-Fi icon are thinner, and





No pattern, no pulse Default buttons now lack a texture and don't pulsate.

a simplified battery icon on laptops feels more like the one from iOS. The Spotlight menu bar item remains anchored next to the similarly immovable Notification Center icon, despite the fact that the Spotlight window itself now floats in the centre of the screen. I sense a certain disconnect here.



Hello, goodbye New face, old face.

Beyond the occasional window pane, translucency effects pop up in a few other places in the system. When Exposé is triggered, the background now fuzzes out, and there's a similar effect on the login screen, which shows a fuzzed-out picture of Half Dome.

Several other interface elements have been flattened in the same style as the traffic light buttons. Most notably, the pulsating blue glass-textured button in dialog boxes has lost its texture (the glass texture that remained from OS X's 'aqua' interface is gone); it's darker (with the text displaying in white) and it doesn't pulsate any more.

Apple's engineers have clearly been browsing in the US equivalent of Lakeland for their inspiration, and the result is that the system's trash can is now a white translucent plastic job rather than the metallic wire basket previously

favoured. *Sesame Street's* Oscar the Grouch would doubtless demand a return of the big metal trash can from the classic Mac OS.

And the Dock, which in recent versions of the OS had become a 3D shelf at the bottom of your screen for the program icons to sit on, has reverted to something simpler. Like the Dock that you can still find in Mavericks if you set it to display on the left or right side of your screen, Yosemite's is merely a 2D background with a hint of translucency. It's a great improvement, but seriously, people, try pinning your Dock to the left or the right – you'll like it. The subtle glow beneath running applications in the Dock is now a more noticeable black dot.

There's also a fresh new face in OS X Yosemite – literally. The 'Mac face' logo that has represented various portions of the Mac (originally the classic Mac OS, most recently the Finder) for the last 16 years, has been updated. The image (which is made up of two half-faces, one viewed full-on and the other the profile of a different face) still represents the Finder,



LED lights up A tale of two bulbs.

but it's been tweaked. Farewell, old face, you served us well.

Finally, breaking news from the System Preferences app. The compact fluorescent light bulb that represented the Energy Saver preference pane since 2008 is no more. After visiting container heaven, Apple's OS X elves popped into the US equivalent of Homebase and picked up an LED light bulb. One can only assume that Oscar the Grouch will also be lamenting the loss of the old incandescent bulb.

Skin-deep

The design changes in Yosemite are noticeable, but the system is still quite recognisably OS X. Long-time Mac users' fears that the Mac was about to collide with iOS in some kind of crazy peanut butter-chocolate disaster have not been borne out. Yosemite's forward-thinking design simply looks better on Retina displays, pointing the way toward a high-resolution future for Mac users.

Unfortunately, in some areas Apple's left hand doesn't seem to know what the right is doing. I'd like to see more consistency when it comes to the way the traffic light buttons and title bars are displayed, and I worry about the increased clutter and decrease in clickable areas for dragging windows.

I'm also concerned about the loss of window titles in apps where they impart real information.

What's more, the new dark Dock and menu bar option seems like an afterthought. It'll be interesting to see how Apple designs its individual built-in apps, and what decisions third-party Mac developers make on this front.

But otherwise, there's a great deal to like in Yosemite's design. Unless, of course, you're Oscar the Grouch.

Yosemite's forward-thinking design simply looks better on Retina displays, pointing the way toward a high-resolution future for Mac users

HOW TO USE HANDOFF TO MAKE iOS 8 AND YOSEMITE TRUE COLLABORATORS

By Christopher Breen



A key feature that makes the iOS 8/Yosemite combination so powerful is Handoff, a scheme that lets you transfer tasks from one device to another. You can start working on something in one device, and then smoothly and seamlessly take up the same task on another – begin with your iPhone and then move to your Mac, for example. iOS 8 already let you use Handoff between an iPhone and an iPad, and with the launch of Yosemite your Mac can get in on the fun, too.

Handoff requirements

To take advantage of the feature, you will need a MacBook Air, MacBook Pro, iMac or Mac mini made in 2012 or later. The late 2013 Mac Pro is compatible, too. Your Mac must be running Yosemite and you must have iOS 8 on your iPhone, iPad or iPod touch.

Devices should be within approximately 33 feet of each other for Handoff to work.

Ready to resume Swipe up on the Handoff icon on an iOS device to get going again.

And any devices that you wish to use with Handoff must be signed into iCloud using the same Apple ID. Additionally, you must switch on Bluetooth for these devices to talk to one another via Handoff.

To enable Handoff on your Mac, launch System Preferences, select the General preference, and enable the Allow Handoff between this Mac and your iCloud devices option. On an iOS device you instead go to *Settings* → *General* → *Handoff & Suggested Apps* and then switch on Handoff.

Now that you've configured your compatible devices correctly, let's see how Handoff works.

Handoff and apps

The idea behind Handoff and apps is that you can launch an app on one device and then, when you're in range of another, continue your work seamlessly on that

other device. For example, you might be working on a long note on your iPhone and, walking into your home office, choose to finish your work within your Mac's version of Notes.

Currently compatible apps include the iOS 8 and Yosemite versions of Calendar, Contacts, Mail, Maps, Messages, Notes, iPhone, Reminders and Safari. On a Mac running Yosemite, Keynote 6.5, Numbers 3.5 and Pages 5.5 are compatible, as are versions 2.5 of Keynote, Numbers and Pages running under iOS 8.

Handoff on the Mac

To use Handoff between an iOS device and a Mac, simply launch a compatible app on your iOS device. When you do, a Handoff icon will appear at the left of the Mac's Dock (or at the top of it if you've pinned your dock to one of the sides of your display). To use the app on your





Click to continue The Handoff icon is next to the Dock and in the application switcher.

Mac, just click on this icon and the app will launch and display the content that you were viewing on your iOS device.

Alternatively, you can press Cmd-Tab to bring up the Mac's application switcher. If an app can be handed off, you'll see its icon to the left of the switcher. Select it and the appropriate app will launch.

Handoff on an iOS device

On an iOS device you'll see evidence of Handoff on the lock screen. When an app is available for handing off, you'll find its icon in the bottom-left corner of the screen. Swipe up on it, enter your password, and the appropriate app will launch on your device and display its current content.

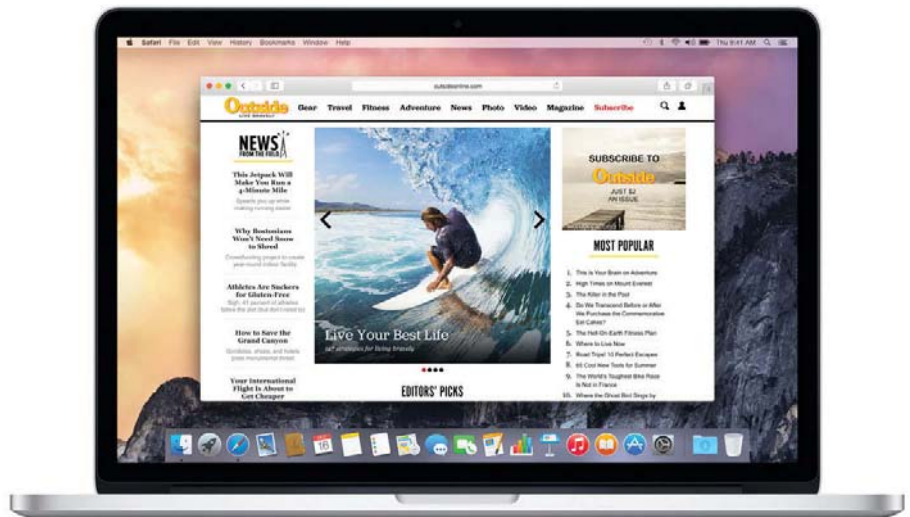
You don't have to quickly lock and unlock your device just to access Handoff, though. You can also double-click the Home button to get to the multitasking screen and swipe to the right. The first pane you see in this screen is used by Handoff. Tap it and the correct app will launch.

In either case you can continue to work within an app and then hand it back simply by invoking Handoff on the original device. Or, if you like, hand it off to yet another compatible device within range that shares your iCloud address.

Note that the device you're handing off from must be awake and unlocked.

If, for example, you're working on an email message on your iPhone and that iPhone automatically locks, Handoff won't work until you wake the phone and unlock it.

And that, in a nutshell, is Handoff. It offers a convenient way for you to continue with your work from whatever device is best for the job at that point.



GET TO KNOW THE NEW, SLIMMED-DOWN SAFARI

By Jason Snell

If there's a single app that defines the OS X experience, it's probably Safari. Not everyone uses it – many of my friends and family members prefer Chrome – but as the default browser it's the window on the web for most Mac users. And it's clear that Safari is the stock Apple app that has changed the most under Yosemite.

Where's the rest of the URL?

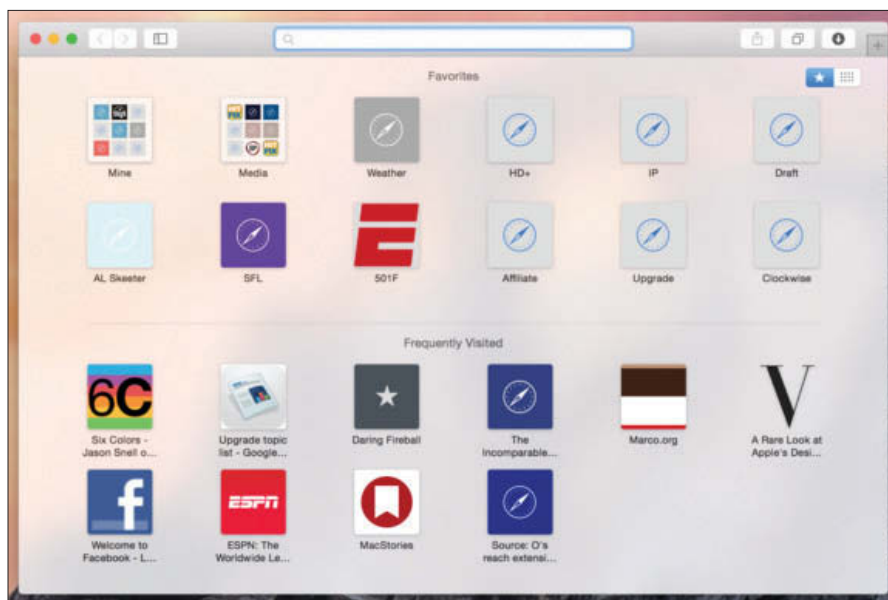
By default, Safari is sparsely decorated in Yosemite. There's no longer a title bar with the name of web pages, and the traffic light buttons at the top left of windows have merged down into the toolbar as they have in some other apps. All other toolbars are off by default, and the address/search bar no longer even displays a full URL, just the name of the host that's serving the page you're viewing. If you want to see the name of the page you're on, you need to display the tab bar – tabs are the only part of the Safari window that can show page names.

The result is a minimalist look that feels like it was taken right out of Safari on iOS. There is one bar, very little text and

everything else is the web page itself. On a phone, minimising the stuff around the web page is desperately necessary. On a tablet it's a good idea. On a 15in Retina MacBook Pro or a 27in iMac, though, it feels a little pointless.

In Mavericks, my Safari app was set to display the status bar and favourites bar. The status bar shows where a hyperlink will take me, which I like. And the favourites bar gives me quick access to my most important sites as well as bookmarklets, little JavaScript-embedded macros that do things like add podcasts to Huffduffer or articles to Instapaper. Though I use browser tabs sometimes, I don't have the tab bar turned on by default – it only appears when I have more than one tab open in a window.

The way Safari does things in Yosemite is essentially the opposite of the way I use my web browser. The good news is that most of these choices can be simply changed by judicious use of the View menu, which can restore the favourites bar (which, oddly, now centres the bookmarks) and the status bar. Unfortunately, the page name doesn't



show up in the menu bar any more, nor can you opt to see the full web page URL.

General crankiness aside, there's a major usability problem with this design approach. Removing the title bar space at the top of the browser window makes it more difficult to drag Safari windows around the screen. The centre of the window is now the address/search bar, and you can't click on that. Nor can you click on the traffic light buttons or any of the other toolbar buttons. There is a narrow grey space just to the left and right of the address/search bar, and that's the only place from which you can reliably drag the window around.

The centring of tabs in the tabs bar is also a mistake; now, when you resize a window or add or remove an item, and those at the left and right become smaller and impossible to select, every other item in the bar slides around. If like us you have lots of tabs open, you'll find it difficult to find the tab relating to the page you are looking for this way, and we'd advise you use the new Tab view instead, discussed below.

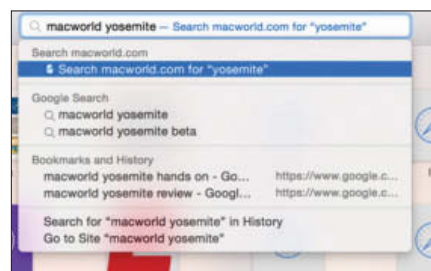
Adding more views

But Apple hasn't been content just to hide features in Safari for Yosemite. Several features have been added, some of which have been taken from Safari for iOS. The demotion of the bookmarks bar seems to have happened because there's

a new Favorites view that looks very much like what you see when you tap in the URL/search bar in Safari for iOS: the browser window fills with the contents of your favourite bookmarks, the same collection that populates the bookmarks bar. The background to this page is translucent, so it will let in some hints of whatever's behind the browser window.

If you like the Favorites view, you can even set it as the default when you open a new page or tab. A smaller version also appears as a drop-down when you type Cmd-L or choose Open Location from the File menu.

In this view, there are large icons for each bookmark in your Favorites folder, and folders full of favourites appear as an icon full of smaller icons. In the menu bar itself, it's sort of annoying – it just gets in my way when I'm typing a URL. But as a replacement for top sites or a blank page in a new browser window, it's kind of a



Immediate hit You can eliminate the middleman by jumping straight to a site's search engine from the search box.

Favicons The new Favorites view is similar to the one on iOS, giving you quick and easy access to favourite sites and even folders full of favourites.

good idea. Your favourite sites and your frequently visited sites are all arrayed in front of you, represented by simple favicons. It takes some getting used to, but it's a good idea.

Another addition is Tab view, which is actually a redesign of the existing feature that would let you zoom out (by pinching on a trackpad) to see the contents of all your open tabs in one place. In Mavericks, that view was a series of slightly zoomed out pages that you could swipe through, one by one.

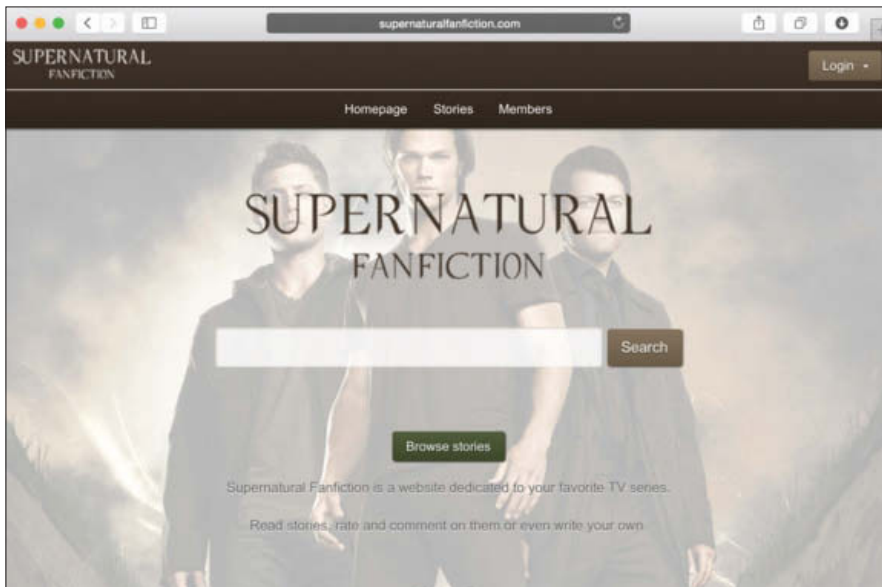
Well, that's gone. The new Tab view, accessible via pinching on the trackpad or clicking on the new Tab View button in the toolbar, is a grid of thumbnails of the tabs currently open in that window, supplemented with a list of tabs open on your other devices, synched via iCloud. It is the replacement for the old iCloud Tabs button.

I never considered the old quick-tab view anything but a nuisance – a mode I got into when I unintentionally zoomed out of a page too far. And I'm still not convinced that the new Tab view is going to be used a lot, though the addition of iCloud tabs will give some people a reason to visit. Personally, I preferred iCloud tabs when they were beneath a button on the toolbar, but that feature has been removed in Yosemite. The ability to scroll through a long list of tabs in the tab bar, added in Yosemite, seems like it will appeal to more people than this zoomed out view.

Stronger search

One feature addition I really do like is the enhancement of the auto-complete options when you're typing in the URL/search bar. And as you type into the URL/search bar, Safari's not just querying your search engine and bookmarks any more, it's also searching Wikipedia, Maps, iTunes and news, just like in Spotlight.

It's a small change that makes it much easier to use the browser as a quick



reference tool, since you can, for example, jump straight to the Wikipedia page for a topic you're interested in directly from the bar. The destination of so many of my Google searches tends to be a Wikipedia page that it makes sense for Apple to eliminate the middleman and allow me to jump straight there.

There's also something called quick website search. Once you've searched on a website – although only in the home page – it's added to Safari's list of searchable sites. Once that's been done, you can use the site's name as a shortcut to search directly from the URL/search field. For example, if I type 'macworld retina iMac', Safari gives me an option to search macworld.com for retina iMac, and if I select that item I am taken to Macworld's own search results for that

term. That's a nifty shortcut that, again, eliminates an intermediate page and takes me to my results.

Hands off my stuff

Per-window private browsing, long a feature in Google Chrome, arrives in Safari with Yosemite. Previously, to browse securely, you had to enable a Safari-wide private browsing mode from the Safari menu. That feature is now gone, and it's not a bad thing. Making it available on a per-window basis will make it much more useful. Even with that feature there, I always switched to Google Chrome for my private browsing.

Now I can choose New Private Window from the File menu and, according to Apple, the browser session will be completely anonymous. An alert appears

Guilty pleasure Safari's private browsing mode will make sure what you view isn't trackable or in your internet history.

at the top of the screen when you create a new private window; if you dismiss it, the private window looks like every other Safari window, except the URL/search bar is dark grey with white text, the reverse of the usual colour scheme. I'd prefer it if a private window was more obviously different from ordinary Safari windows.

Too much of our behaviour on the web is stored and tracked, and sometimes, especially when searching sensitive topics, it's comforting to know that what we're doing is not being stored. However, bear in mind that Safari's private browsing feature can't completely obscure you – your device's internet address and some other basic information about your computer are still passed on to servers.

Another Apple move toward more privacy on the web is the integration of the DuckDuckGo search engine, which has been added to the previous options of Google, Yahoo and Bing. DuckDuckGo is most notable for being committed to not collecting or tracking the personal information of its users, in contrast with the more established search engines.

And within the Privacy tab of Safari's Preferences window, there's now increased granularity when it comes to storing cookies and website data, which allows you to limit whether previously visited websites can track you.

A whole new Safari

The Safari's new search and privacy features are welcome. And on small screens (such as an 11in MacBook Air) its new simple and sleek look will be helpful. I question whether most Mac users need the browser experience simplified to quite this degree, but at least most of the toolbars and features we've seen in previous versions can be turned back on (or at the very least approximated) by toggling various preferences. Old hands can put things back the way they want; less adept users will probably appreciate how much Safari on the Mac now resembles its iOS cousin.





NOTIFICATION CENTER GIVES WIDGETS THEIR DUE

By Jason Snell

Notification Center has been a part of OS X for two years. It was introduced in Mountain Lion and expanded in Mavericks. But with Yosemite, Notification Center has transformed into something exponentially more useful than it was before. In fact, in Yosemite Notification Center is so different – and so much more useful than it was – that it probably deserves a whole new name.

A supply of widgets

But I'm getting ahead of myself. Let's start with the most fundamental of changes: with Yosemite, Notification Center no longer slides a Mac's entire interface off to the left in order to pop out from the right side of the screen. Now, Dock-like, it slides in on top of the right side of your screen while you're using it. The old approach was certainly dramatic, but I think this new one is a better metaphor.

Once Notification Center slides in, you'll notice a major change right there at the very top. As in iOS, there are now two tabs, one called Notifications (that's the

one you're already familiar with) and one called Today. The Today tab is where all the exciting new additions to Notification Center live.

Today takes its name from the same tab that was added to iOS 7's Notification Center as a way to give users a quick view of what's going on today, such as how many calendar items they've got and when their next meeting is. That functionality is a part of the Today view in Yosemite, but it's so much more than that.

At the very bottom of the Today view is an Edit button; when you click on it Notification Center slides out even further, adding a second column on the right that's full of items you can add to the Today view. You can also use this view to remove items that are currently in the Today view or reorder them. These items are Notification Center widgets, just like the ones that were introduced in iOS 8.

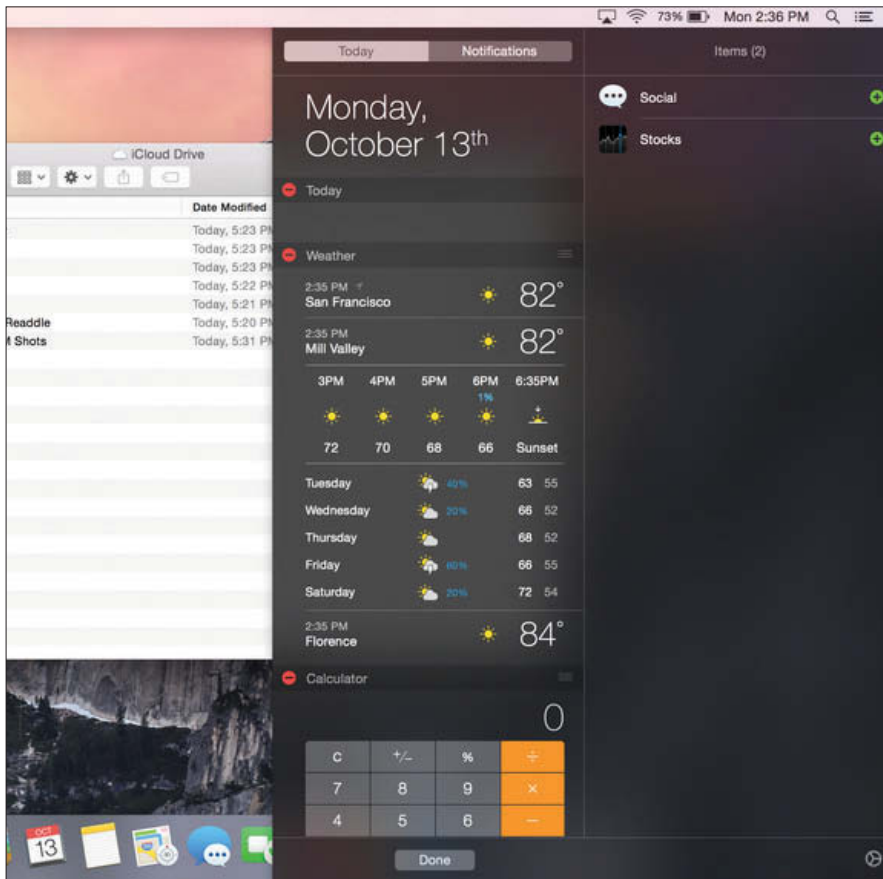
Apple provides nine basic widgets. Today summarises what's happening today in your schedule, as it does on iOS, and Tomorrow does likewise for the next day. Weather displays current

temperatures and forecasts. Reminders shows you timely items from the Reminders app. Calculator lets you do addition and multiplication and other basic mathy things. Social lets you post to Facebook or Twitter, or send text via Messages. World Clock shows the time in various cities. Calendar displays today's calendar items. And Stocks shows time-delayed stock market prices.

Some of these widgets are configurable. When you're not in Edit mode and you move your cursor over some of the widgets' title bars, a lowercase letter i in a circle appears. Click



Up to date Exciting extras in the Today tab.



Widget Central When you edit the Today screen widgets, a second column slides out showing all currently unused widgets.

on this information icon, and you can modify that widget – adding or removing cities from the Weather or World Clock widgets, for example.

Though many widgets are there just to be glanced at, you can interact with most of them too. Clicking on a city in the Weather widget will expand it to show an hour-by-hour forecast, which is very much the behaviour we're used to seeing in Apple's Weather app on iOS. And if you click in the Calculator widget, you can click on its buttons or use the keyboard to do your sums.

Widget critic

The base widget collection is very much in line with what we've seen on iOS and in OS X's Dashboard feature. But the great news is that the contents of the Today view can be supplemented with widgets from third-party apps.

Standalone apps can supply their own widgets automatically. If you bought, say, TLA Systems's PCalc on the Mac App Store, its widget should appear automatically in the Items list. In addition, there will probably be a widgets-only corner of the Mac App Store.

I'm excited to see third-party widgets. Apple's are nice, but they're a bit boring. The Weather widget doesn't show forecast highs or lows unless you expand the view. The Calculator widget supports only the four basic operators and percentage. World Clock doesn't offer a digital time view, nor is the list of clocks horizontally scrollable (as you add clocks the widget just gets taller and taller). Reminders only shows items with due dates that are approaching, so undated items are ignored.

I've enjoyed many of the new widgets released by app developers since the release of iOS 8, and I expect that the Mac will gain numerous interesting third-party widgets with the release of Yosemite. In fact, choosing just which

widgets deserve to be in Notification Center will be most users' biggest task.

See you later, Dashboard

When Apple announced the changes to Notification Center in Yosemite, everybody seemed to have the same thought: that pretty much wraps it up for Dashboard, the interface layer for simple widgets that Apple introduced nine years ago as part of its release of the OS X Tiger operating system. Perhaps surprisingly, Dashboard still exists. You can enable or disable it via the Mission Control pane in System Preferences.

But let's not kid ourselves: Dashboard's on its last legs. I'd put good money on it being removed in next year's OS X update. Dashboard widgets (written in HTML and JavaScript) were introduced by Apple during an era when using web-based technologies to write lightweight applets seemed like a great idea.

But now we're in the App Store era, and using the same technologies that power iOS and Mac apps seems like a far better choice – and that is indeed what you'll find running Yosemite's Notification Center widgets. If they seem a little like fragments of iOS apps, you're not far wrong. Since iOS 8 also supports Notification Center widgets, I suspect we'll be seeing a lot of the same widgets on both platforms. Apple's thriving community of app developers should provide us with a vibrant selection of widgets, something Dashboard never really achieved, or at least hasn't seen since the halcyon days of 2006.

All told, Notification Center's Today view seems like a great replacement for Dashboard, and a major benefit to OS X users. My only real complaint is the name on the package: Notification Center is no longer just for notifications, and the Today view is the landing place for widgets with information that goes far beyond what's happening today. Sure, in iOS 7 the names made sense, but with Yosemite (and iOS 8) they just don't fit any more. This is a major new set of functionality and it deserves a fitting name.

How about Dashboard?



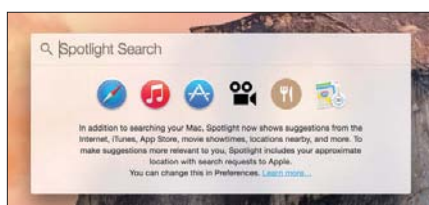
SPOTLIGHT GETS A NEW LOOK AND THE POWER TO SEARCH BEYOND YOUR MAC

By Jason Snell

Like its littermate Dashboard, the Spotlight feature has been with us since OS X Tiger first appeared, way back in 2005. That entire time, it's been a systemwide search feature parked at the top of the screen. But Spotlight in OS X Yosemite is different. Really different, with a new look, a new location, and a new set of data sources. This is not the Spotlight we've come to know.

Front and centre

In Yosemite, Spotlight has a new location. While the Spotlight menubar item remains anchored near the upper-right corner of the screen, next to the Notification Center icon, the Spotlight window itself is no longer stuck up there too.



Instead, when you hit Cmd-Spacebar, Yosemite's Spotlight bar appears in the middle of your screen – well, in the upper middle of your screen to be entirely accurate. The box – and the type inside it – is also much larger than in previous versions of Spotlight. In Yosemite, Spotlight's search results

Down a bit Spotlight in Yosemite has moved from the top right of the screen to somewhere in the middle.

come in two sorts: immediate and detailed. As you begin to type, the text will immediately be auto-filled with what Spotlight thinks is the most likely match for the thing you're looking for. This is ideal for using Spotlight to launch apps. As you begin typing, say, the word 'calendar', you'll see the word completed for you immediately in light-grey characters. Press Return, and the Calendar app will launch immediately.

Autofill Spotlight autofill in Yosemite.

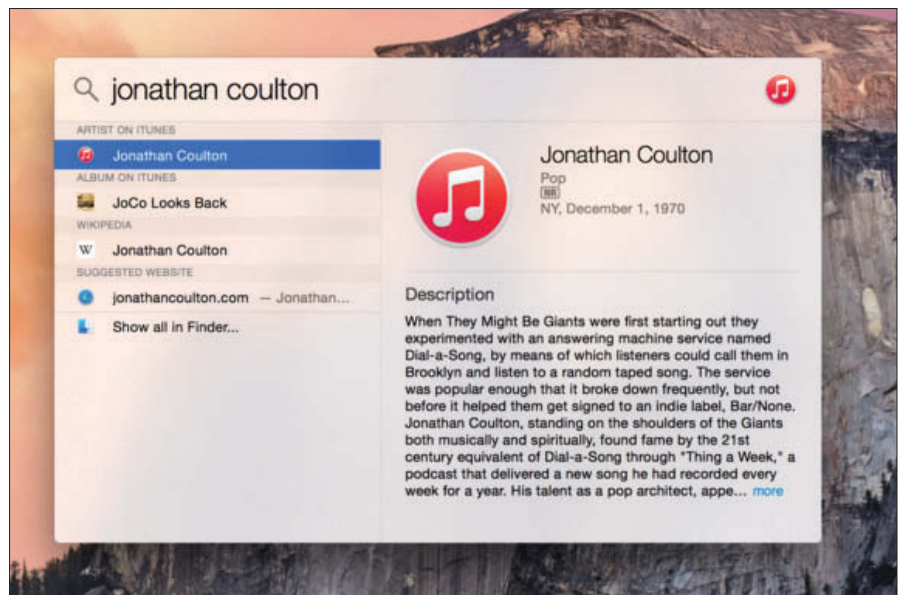




Give Spotlight a couple of seconds, though, and the thin Spotlight window will expand to become a window full of detailed results from numerous data sources. In Mavericks, Spotlight searches your files and the dictionary, and offers links to launch web or Wikipedia searches. In Yosemite, Spotlight expands that roster of sources to include news headlines, maps, Bing web search, the App Store, the iTunes Store, top websites, and movie showing times. And these aren't just links for opening those searches in Safari: the search results from those sources appear right in the Spotlight window.

The new Spotlight results window is divided into two sections, below the quick text-entry area. On the left are a list of results, sorted by source. On the right is a preview pane, where you can click or use the arrow keys to select a result. In many cases the preview is all the information you'll need; for dictionary definitions and even some Wikipedia article summaries, it does the job. But if you want more, just double-click or press Return to open the selected item in an appropriate spot.

The new features of Spotlight work pretty well. When I entered the name of my son's school, Maps provided its address and a thumbnail view of its location. Typing the name of a recent movie brought up its publicity poster,



Straight to the source Spotlight results come from a variety of data sources now.

Rotten Tomatoes rating, running time, trailers, plot summary, cast list, and (of course) a list of screening times. (For now this information is provided only in the US.) When I entered the name of a musical artiste, I got a link to his iTunes artist page, one of his albums, his Wikipedia page and his personal website.

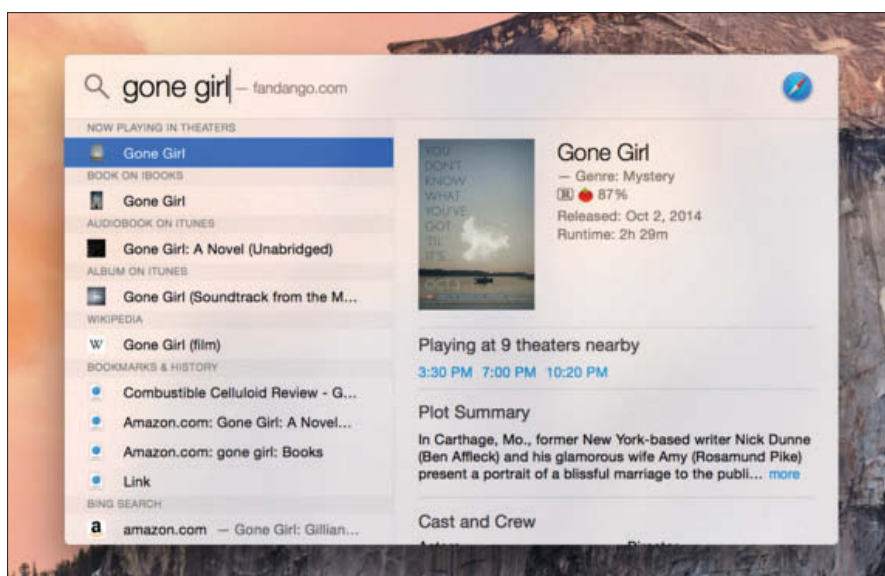
Spotlight also now supports unit conversion, so you can impress your American friends by typing 28°C into the search window and telling them that yesterday's high was 83°F.

Sherlocking Alfred?

As soon as the new Spotlight was announced, I began to hear people speculating about how it's such an expansive upgrade that it will render third-party launchers – LaunchBar, Alfred and the others – irrelevant. But, as with most core OS features that Apple announces, Spotlight's facilities are meant to appeal to all users, not power users. If all you're using Alfred for is launching apps and doing quick searches, then you might not need it any more.

But all of those apps provide features that Spotlight doesn't support, even in Yosemite. If I type 'yet' into LaunchBar, it will find a document titled 'Yellow Elephant Test'; Spotlight will only search for the exact 'yet' string. If I then press tab and type BB, LaunchBar will offer to open that document in BBEdit. Launcher apps like this offer quick access to the history of your clipboard, support customisable hotkeys to open files, are extensible and customisable – all things that Spotlight's fancy new search really isn't.

In short, the new Spotlight is cool – so much so that I might actually use it regularly, which I don't really today, at least not from the menu bar. It looks great, and the responsive and rich results suggest that it will be one of Yosemite's most popular features.



Film facts in a flash Movie information is fed right into Spotlight in Yosemite.



NEW TRICKS YOU'LL FIND IN THE MAIL, MESSAGES AND CALENDAR WIDGETS

By Jason Snell

A major update to OS X generally means that many of the apps included with the operating system also get major updates, or at least the biggest updates they're likely to get until the next major OS release. In Yosemite several major Apple apps have received upgrades both big and small. Here's a look at what's new with Mail, Messages and Calendar.

Mail gets markup and more

Aside from a few slight interface tweaks – for example, the Show/Hide toggle that displays the mailbox list is now more properly labelled Mailboxes – Mail looks much the same as it did in Mavericks. But this is not to say that there aren't some major new feature additions.

One I really like is Mail Drop, which eliminates the problem of emailing large file attachments. As someone who produces more than a few podcasts, I have always wanted to attach large files to emails (the server rejects them). For years there have been workarounds, largely involving uploading a file to a remote file-sharing service of some sort and pasting in a link.

In Yosemite, that entire procedure is baked into Mail, and it's all stuff that happens behind the scenes. If you want to attach a large file to a message, just drag it in and send away. Mail will upload the file to a temporary holding bin on Apple's servers, where it will remain for 30 days. Then the attachment is replaced in your email message with a download

link to the file. If your recipient is using Yosemite, Mail will just download the large file automatically, as if it had been attached to the message.

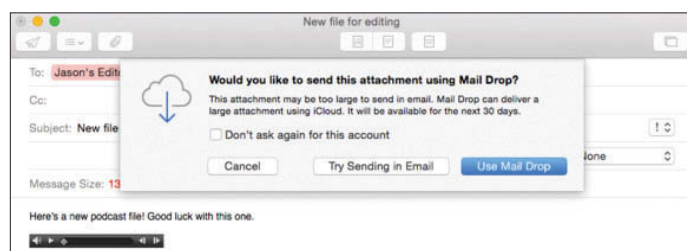
This is a quintessential Apple feature, eliminating a common headache without forcing users to make any changes to their behaviour. I don't mind using Dropbox (or, back in the day, YouSendIt) to exchange files with friends, but it's a multistep workaround, and the new deal is as simple and direct as it gets. You just need to remember not to put your Mac to sleep or shut it down after you've sent your message, because your large file may still be uploading in the background.

Another interesting addition is Markup, which allows you to add simple annotations to images and PDFs from directly within a Mail window. Here's how it works: you click on a file and an icon appears in the top-left corner of the file's preview; click it and select Markup, and the item zooms out, with a toolbar appearing directly above the item.

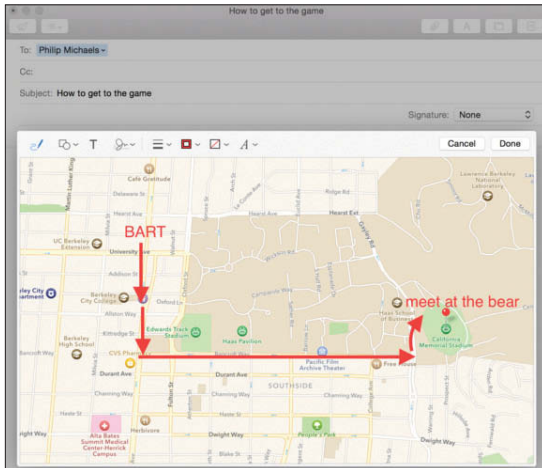
Markup is an example of the Extensions technology that debuts in both Yosemite and iOS 8, in which code from an entirely separate application can appear inside another app's window. In this case, Apple's Markup extension lets you draw lines, shapes, text and more on PDFs and images. You can stick your signature on PDFs without ever leaving Mail. It's a pretty clever idea.

Unfortunately, I'm not thrilled about the implementation. Marking up a file feels like using a different program entirely – one without keyboard shortcuts or a menu bar. I kept pressing Cmd-Z to undo mistakes I made in Markup, and it did nothing. The Markup controls are pretty simple – they feel more like an iOS app than part of Mail, to be honest – but they did the job once I got the hang of them.

Extensions have the potential to dramatically reshape how we use Mac apps, but they will take some getting used to. In the future, if a developer wanted to make an alternative to Markup, users could use that extension from right within Mail too. Presumably other apps could opt to use the Markup extension, too, if they want.



Giant step forward Mail in Yosemite asks if you want to use Mail Drop for large files.



There's potential here, but it does feel a bit weird. It may take some time for everyone – Apple, app and extension developers, and most of all users – to get used to it.

Messages

Messages, Apple's go-to app for iMessage and other chat services (that's clearly the order of priority), gets a bunch of upgrades in Yosemite that will enhance your conversations – so long as everyone is using iMessage. Other chat services are still supported, but that support appears to have been in deep freeze for several updates. If you truly love IM, you're probably better off using an app such as Adium for those services, and keep Messages focused on iMessage.

The marquee feature in Messages on Yosemite is probably Soundbites, which adds a microphone button next to your chat window. Click it, and you'll be able to record a brief audio message and send it via iMessage. This feature is interoperable with – and more appealing on – devices running iOS 8.

In my testing, Soundbites worked as promised, though messages sounded more like lousy telephone connections than what I've come to expect from computer audio. Nor am I thrilled with what a chat window looks like after a

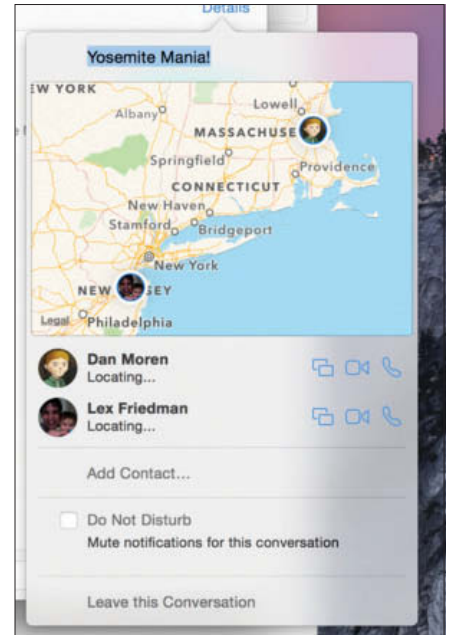
Stick it on in situ Markup is an extension that lets you modify images and PDFs in place in Mail.

series of audio messages: it's just bubbles of audio files going back and forth, entirely inscrutable. Maybe some of that fancy speech recognition technology could be brought to bear on these messages to make them searchable (and even glanceable) without them having to be played back one by one?

But there's still a lot to be said for asynchronous audio conversations. One of the reasons I text my friends and family instead of phoning is that most of the time I don't need to interrupt what they're doing right that second to get an immediate response – it's just not that important. With this new feature, especially on iOS, it'll be easy for us to hear each other without demanding immediate attention with a phone call.

Group iMessaging also gets a big boost in Messages. There's a new Details button (though it looks like hyperlinked text, iOS-style, rather than a standard Mac interface element) that brings up a raft of options. You and your interlocutors can share your locations using the Find My Friends infrastructure, and the Details view will draw a map showing where every participant is located. You can also kick off phone calls, individual chats or FaceTime sessions directly from the Details window, and add or remove participants. And just to help you keep track of conversations, you can give each of your group chats a distinct name such as 'dinner plans'.

Perhaps most importantly, the new Messages lets you control group conversations that you might want to bail out of or just not be interrupted by. You can select Do Not Disturb if you don't



Where in the world The Details view in Messages gives a map and group controls.

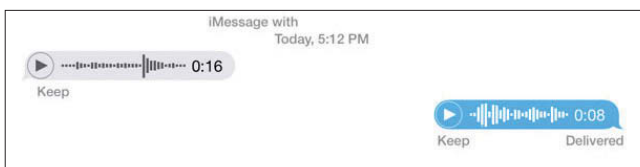
want any more notifications from an ongoing group conversation, or click Leave Conversation to drop out.

Calendar

Apple's Calendar app hasn't undergone many changes in Yosemite, but there are a few worth noting. When you create a new event, it attempts to learn from previous events you've created and tries to autocomplete with likely dates and even attendees. If you often create a 'lunch with Jim' event on Tuesdays at 12.30, and you type 'lunch', then Calendar will suggest lunch with Jim at 12.30 with Jim invited.

The Day view is still two-pane, but instead of the (fairly redundant) two daily schedule panes in Mavericks, it's a single schedule pane and an inspector pane that shows you all the details of a selected calendar event. If you create a new event in this view, the inspector pane is where you enter all the calendar information.

There's also a new option to display an overlay calendar – if you also need to know the date in the Islamic, Hebrew or Chinese lunar calendars, Calendar can now display them alongside the Gregorian calendar system.



Ideal for iMessages

An audio conversation in Messages.

Christmas gift guide

Ashleigh Allsopp presents a gift guide that will guarantee a perfect Christmas

Christmas is rapidly approaching, and that means the gift-buying season is upon us. We know how difficult it can be to find the perfect gift for everyone, so here we've rounded up the best new Apple-related tech we've seen throughout the year with enough present ideas to suit every budget.

This year, Apple has launched the iPad Air 2, iPad mini 3, iPhone 6 and iPhone 6 Plus as well as new iMacs, a MacBook Pro refresh and a new MacBook Air line-up. It has even updated the Mac mini for the first time in more than two years.

That means there are plenty of new accessories and peripherals to choose from, whether you're looking for something fun, something practical, something fashionable or something to keep your sparkly new Apple devices safe.

We've got cases, battery packs, storage devices, speakers, headphones, quirky gadgets and more in our Christmas Gift Guide 2014, so read on to get some gift inspiration.



Photography by Dominik Tomaszewski





Shoulderpod S1

£24
shoulderpod.com

The Shoulderpod S1 helps keen photographers make the best use of their iPhone as a camera. This accessory can mount to a tripod, nestle in your hand in a 'filmmaker grip' or break down into a stationary travel stand. You can slip it into your bag or hang it from a belt strap, too.

Ted Baker AW14 collection for iPhone 6

£24.95
proporta.co.uk

For a fashion-savvy friend, Ted Baker's AW14 cases for the iPhone 6 make perfect presents. The iPhone 6 cases feature the brand's latest prints, and sport the Ted Baker London plaque. They're made with a soft-feel-finish polycarbonate, and give free access to all ports, buttons and controls.



Tryble Headphone Earmuffs

£19.99
firebox.com

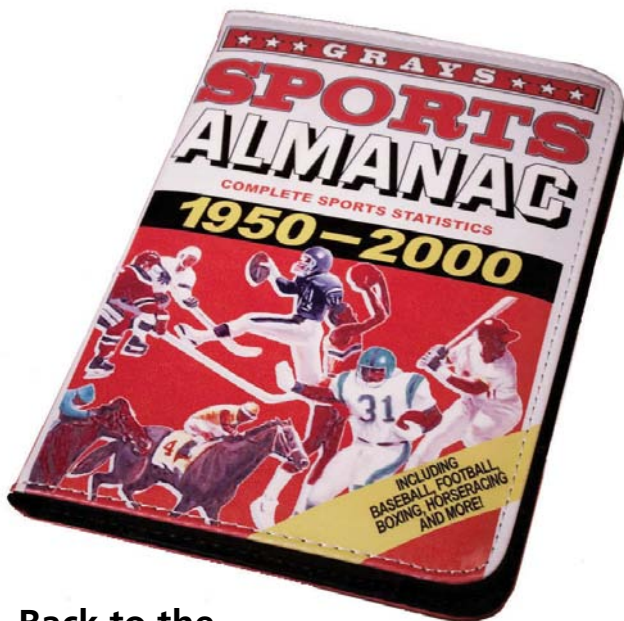
Designed for those cold, wintery days, the Tryble Headphone Earmuffs will keep your ears nice and toasty while allowing you to listen to music from your iPhone or other smartphone or tablet. They look good, sound good (as good as you'd expect for a bargain price of £19.99) and are practical, too.



Boom Box Touch

£24.99
firebox.com

Here's a speaker that fits into the sub-£30 category, and it's a clever one too. The Boom Box Touch speaker doesn't use cables or Bluetooth pairing – simply place your iPhone or iPod on top of the speaker and press play. It's small, portable and can last for up to 10 hours of continuous playtime. Then, simply charge it using the Micro-USB cable.



Back to the Future case for iPad mini

£17.99
firebox.com

Back to the Future fans will love this brilliant iPad mini case inspired by the *Grays Sports Almanac* that Old Biff gives to Young Biff in the movie as a ploy to become a millionaire by betting on sporting events that had yet to happen. There's a bigger version for owners of Apple's iPad 2 or later, too.

3 in 1 Powerbank, Torch and Hand Warmer

£19.99
iwantoneofthose.com

Here's an example of practicality at its prime: the 3 in 1 Powerbank, Torch and Hand Warmer. If you know someone who loves camping, festivals and other outdoor activities, then here's a cheap and very cheerful gift for them. Its name is self-explanatory: it can fully recharge an iPhone, provide four to five hours of hand-warming heat and up to 50 hours of light thanks to the LED torch.



Cardboard iPhone projector

£15
firebox.com

This simple, nifty gadget makes the perfect Christmas gift for a Secret Santa at just £15. The cardboard smartphone projector does just what it says on the tin, allowing you to project what's on your phone via the cardboard housing (complete with retro styling) and an 8x glass lens.





Misfit Flash <<

£49.99
misfitwearables.com

Ideal for friends or family with a keen interest in fitness, the Misfit Flash is a waterproof fitness and sleep monitor that tracks steps, calories, distance and sleep, as well as cycling and swimming, and encourages you to reach your daily goals. Made of soft-touch plastic and available in seven colours, it connects via Bluetooth to your iOS device using a dedicated app that's simple to use and wonderfully designed.

SuperTooth D4 >>

£49
supertooth.net

This cool wireless speaker from SuperTooth is designed to look like a retro megaphone. With a handle at the top, it's been crafted with portability in mind, connecting to any Bluetooth-enabled device. SuperTooth says that it'll last for up to 12 hours on one charge. The speaker is available in five colours, so you can choose from orange, black, white, blue or grey – whichever colour you think best suits the recipient.



Wacom Bamboo Stylus Fineline >

£49.99
wacom.com/en/gb

This gift is for the arty one in the family, but is also perfect for a keen note-taker such as a student. It's great for anyone who misses writing or doodling with pen and paper now that they've got an iPad. The pressure-sensitive Bamboo Stylus Fineline's precise nib is just 1.9mm thick and allows the user to forget about the technology and just draw or write. Bluetooth connectivity lets you transfer your creative impulses easily to an iOS device.



G-Paws Pet GPS Tracker ▼

£49.99
firebox.com

This device is for pet owners curious about what their beloved pet gets up to on its adventures. Attach the small G-Paws Pet GPS Tracker to your pet's collar and send them off. When they return, plug the tracker into your Mac via USB and you can view their pet's travels on Google Maps.



Mophie Power Reserve Lightning ▼

£39.95
amazon.co.uk

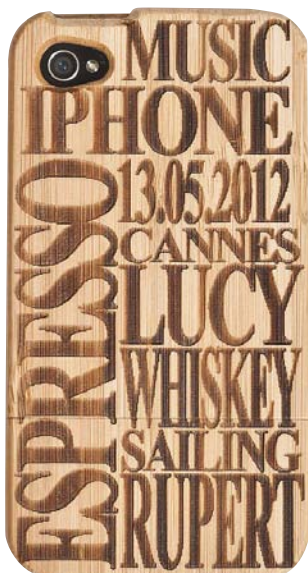
Handy for anyone who constantly finds themselves running out of power on their iPhone, the Mophie Power Reserve Lightning is a small but powerful charger that has an integrated Lightning cable and built-in USB connector to ensure that you're never without the juice you need to give your iPhone a battery boost. It's available in red, black or white, so you can match the colour to the recipient.



Engraved wooden cover »

£39
sophiavictoriajoy.com

Here's a brilliant gift for a close friend or family member. It's an iPhone case that you can personalise with up to nine words that mean something special to that person, like their name, your name, the date you met, a memorable experience you shared and so on. Custom-made from bamboo to fit the iPhone 4, iPhone 4s, iPhone 5 or iPhone 5s, the case offers a tactile feel, and the laser-engraving technique ensures a perfect finish.



SurfacePad for iPad mini ▼

£42
twelvesouth.com

We love the SurfacePad. It's available for iPhone, iPad Air and iPad mini. Made with smooth, genuine leather and lined with microfibre, it covers the front and back of Apple's tablet and also acts as a stand. It's slim too, adding minimal bulk to the iPad. There are three colour choices: Pop Red, Mod White and Jet Black.





Braven 705

£89.99
braven.eu

The colourful Braven 705 speaker is small but stands out from the crowd. It's available in pink, blue, grey, yellow, white, purple or black and is water-resistant, which makes it perfect for use outdoors on holiday or during a picnic. You can also make hands-free calls using the built-in speakerphone, and give your iPhone or iPad a battery boost using this nifty little gadget.



Grovmade Maple Sleeve for iPad Air

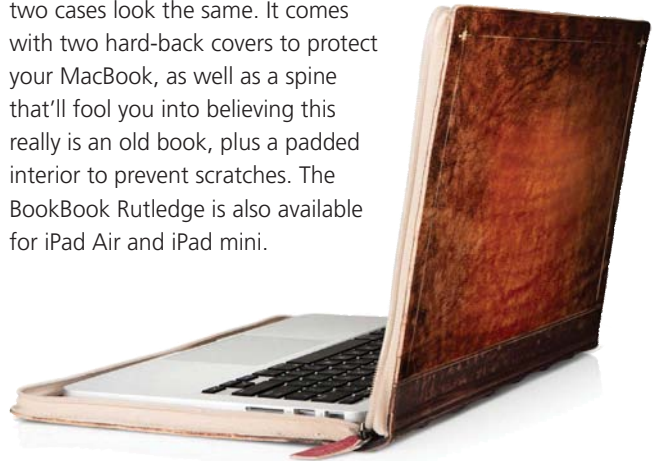
£62
grovmade.com

Grovmade's Sleeve, available in contoured maple or black walnut veneer, has a premium wool lining and a strap for smoothly removing the MacBook Air. Grovmade also makes the Sleeve for MacBook Air and iPad mini (all generations) too. It'll make a gorgeous gift for a loved one, as it's completely handcrafted and oozes style and sophistication.

BookBook Rutledge for MacBook Air/MacBook Pro

£90
amazon.co.uk

Avid readers will fall in love with this beautiful MacBook case. The BookBook Rutledge is made with premium leather that has been tanned and hand-finished, so no two cases look the same. It comes with two hard-back covers to protect your MacBook, as well as a spine that'll fool you into believing this really is an old book, plus a padded interior to prevent scratches. The BookBook Rutledge is also available for iPad Air and iPad mini.



Proporta Stephenson Satchel

£89
proporta.co.uk

Proporta's stylish satchel comes with a removable iPad compartment that doubles as a case. There are even adhesive pads that allow you to attach a Bluetooth keyboard for typing while out and about. The Satchel has been designed to allow you to charge the iPad without removing it from the case, thanks to small openings through which cables can pass. The Satchel, which comes in navy or brown, has a main compartment large enough to fit a 13in or 15in MacBook, plus other personal belongings.



Sphero Ollie

£79.99
gosphero.com

A big brother to the Sphero 2.0 robotic ball, the Sphero Ollie is a robot that can be controlled using your iPhone or iPad and a dedicated app. With a new, tubular design, the Ollie can spin, drift and flip, and is impressively fast at up to 14mph. You can change the colour of the tyres and hubcaps too, with green, orange, pink and blue options available.



B&O Play Form 2i

£60
beoplay.com

The RRP for these B&O headphones is £109 but we've spotted them for much less on Very.com and Iwantoneofthose.com, so we've decided to squeeze them into the £50 to £100 category. The Play Form 2i is a modern update to the company's trendsetting headphones that debuted in the 80s and has won a place in New York's Museum of Modern Art. Now sporting a microphone, in-line remote, better sound and improved comfort, the B&O headphones are super-portable, weighing just 90g, and are available in black, white, red, blue, green, grey and additional limited edition styles.



Pebble Smartwatch

£99
firebox.com

The Apple Watch isn't here yet – it's due next spring but there's no word on the official release date yet. In the mean time, an affordable alternative that would make a fantastic gift for gadget-lovers is the Pebble Smartwatch, which works with iOS devices. It can be used to see notifications including messages, emails and social media interactions, and there are lots of other apps to add more functionality in the dedicated Pebble app store. Choose from black, grey, orange, red and white options.

Mighty Power Wallet

£79
firebox.com

Here's a clever idea for you: the Mighty Power Wallet is a fully functional wallet with a built-in battery that can charge an iPhone up to 1.5 times. It's made from Italian Saffiano Leather and comes with both Micro-USB and Lightning cable adaptors, so you can charge most smartphones and tablets. It's not much bigger than an ordinary wallet (though it is heavier), so it can be slipped into a pocket ready for a night out.



Jarre AeroSkull HD >>

£399

selfridges.com

The AeroSkull HD speaker is not going to appeal to everyone, and with a price tag of £399 it'll be a gift for someone particularly special, but for those looking for a speaker that'll be a talking point at parties and will fit in with a wacky interior design style, then this could be just it. It comes in 11 different colours including black, red, blue, green, silver (all in chrome) and matt black. An iPhone plugs straight into the Lightning connector on the top of the speaker, so there's no need for cables.



Mophie Space Pack >>

From £130

johnlewis.com

The Mophie Space Pack is an amazing product that'll benefit anyone with an iPhone 5 or 5s. It's the world's first battery case and comes complete with built-in storage. The Space Pack is available in 16GB and 32GB models in black or white. If you know someone with a 16GB iPhone who has been complaining about running out of space, here's the gift for them. You'll be able to add up to an extra 16,000 photos, 14 hours of video and 9,000 songs. What's more, the Space Pack could double the battery life of an iPhone. Cool, right?



Parrot Jumping Sumo >>

£139.99

store.apple.com/uk

Here's a brilliant gift for kids and big kids alike. The iPad or iPhone-controlled Parrot Jumping Sumo is great fun – but be warned that when you're not driving the robot it can be pretty frightening when it jumps up to 80cm when you're least expecting it. It even has a camera built into the front of the device to let you stream and record footage straight to your iOS device. There are three (very cool) colour schemes available to choose from, and various apps available to download to help you get more out of this awesome Christmas gift.



Ted Baker Audio Fastnet ▼

£199.99
tedbaker.com

This fun and stylish product from Ted Baker Audio may look a bit like a camera, but it's actually a folding Bluetooth wireless speaker with integrated microphone. Available in four gorgeous colours, the Fastnet speaker can be folded up to protect it from knocks, and that foldable portion doubles as a stand for use while listening. There's a built-in rechargeable li-ion battery that Ted Baker says will last for six hours between charges.



Braven BRV-Bank ▼

£119.99
amazon.co.uk

If you're looking for something that'll charge your iPhone but you don't need it to be able to cook food as well, the Braven BRV-Bank is probably more suitable. It's still ideal for an outdoorsy person, though, as it's rugged and IPX5 water-resistant. And as it's Bluetooth-enabled, it can be remotely controlled, with the Remote Battery Monitor app allowing power levels to be checked. You can turn on or off one or both of its USB ports for power conservation, and activate Bear mode or SOS. In Bear mode, the BRV-Bank will send out an alert if the connected iPhone is moved, and in SOS mode, it will send out a distress signal using the in-built USB torch.



BioLite CampStove ▲

£150
amazon.co.uk

The BioLite CampStove is no ordinary camping accessory. In addition to cooking your evening meal, this extraordinary piece of kit charges your smartphone and tablet or other portable electronics gear. You can burn twigs, pine cones and other biomass in it to keep your iPhone or iPad charged and cook up the fuel you need to keep yourself energised, too.



B&O H6 Limited Edition headphones ▲

£329
amazon.co.uk

These over-ear headphones are super-stylish, made with real leather and anodised aluminium for a lightweight feel and comfort for those who like to listen for prolonged periods of time. There's a three-button inline remote complete with a microphone, and the ability to daisy-chain with other compatible headphones to share music. The Limited Edition B&O H6 headphones are available in three stunning designs: Blue Stone, Graphite Brush and Bronzed Hazel.

Prag

CHANGING VERSIONS

NATURALLY POSSIBLE

NATURALLY POSSIBLE

[illegible]

There is a growing body of research on the effects of the Internet on the health of children and adolescents. The Internet has become a popular source of information for many young people, and it has been found that it can have both positive and negative effects on their health. On the one hand, the Internet can provide access to a wealth of health information, including educational resources, support groups, and online health services. On the other hand, the Internet can also be a source of misinformation, cyberbullying, and excessive use, which can lead to health problems. This paper will review the current research on the effects of the Internet on the health of children and adolescents, and discuss the implications for future research and practice.

BEAUTIFUL TYPEGRAPHY
 Beautiful is a beautiful word. But only if you use it right.

CHANGING VERSIONS

are needed to reduce a teacher's exposure to the maximum of 100 dB(A) in any one 5-min period, and to reduce the number of 5-min periods to a maximum of 10 per day. This would require the use of a range of control measures, including noise monitoring and the use of hearing aids. With the exception of the use of hearing aids, however, no other measures are specified in the Noise Directive.

BEAUTIFUL TYPOGRAPHY

BEAUTIFUL TYPOGRAPHY

ANNOTATE BETTER

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HEADLINE



Headline features are all well and good but it's the little updates and tweaks that can turn below a new version of Mac OS X into a

NATURALLY POSSIBLE

This article is a guide to the features that you will find in the new version of the software. It is not a review of the software, but a guide to the features that you will find in the new version of the software. It is not a review of the software, but a guide to the features that you will find in the new version of the software.

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es

ALTERNATIVES

PAGES COMES FREE WITH YOUR
MAC, BUT IT'S NOT THE ONLY
WORD PROCESSOR AROUND.
CLIFF JOSEPH LOOKS AT SOME
OF THE BEST ALTERNATIVES,
COMPARING NOT JUST HOW THEY
HANDLE TEXT, BUT ALSO PAGE
LAYOUT AND COLLABORATION

BROKEN IN EXHIBITION



Apple Pages

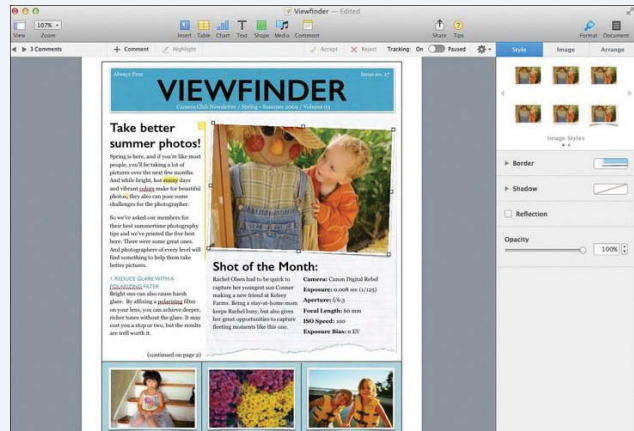
Price: Free with a new Mac or £13.99 from the Mac App Store (tinyurl.com/b4j26Ls)

Company: Apple, apple.com/uk

Word processing: Pages isn't the most powerful word processor available for the Mac, but it is easy to use and offers all the basic tools you need for simple documents such as letters, school reports or newsletters.

The latest version has an uncluttered interface that places most of its editing and layout tools in an Inspector panel on the right-hand side of your screen. You can format text, adjust alignment and spacing, and add elements such as bullet lists. Pages also includes basic editing tools for graphics and photos, so you can add fills and borders to hand-drawn graphics, or make simple adjustments to photos.

Page layout: Apple describes Pages as the “most beautiful” word processor ever, and many of its most powerful features focus on combining text and graphics to create attractive page designs. There are lots of templates to help you get started, or you can create your own designs by moving text and graphics freely around the page. You can also place objects on top of each other, link text and graphics elements together, and wrap text around the edges of images.



Collaboration: Pages can track changes you make to documents, and its iCloud support lets you sync documents across devices and even share them online. These features work well on Macs and iOS devices but there's no PC version of Pages, which makes collaborating with PC users tricky – unless you can convince them to use the online version.

Google Docs

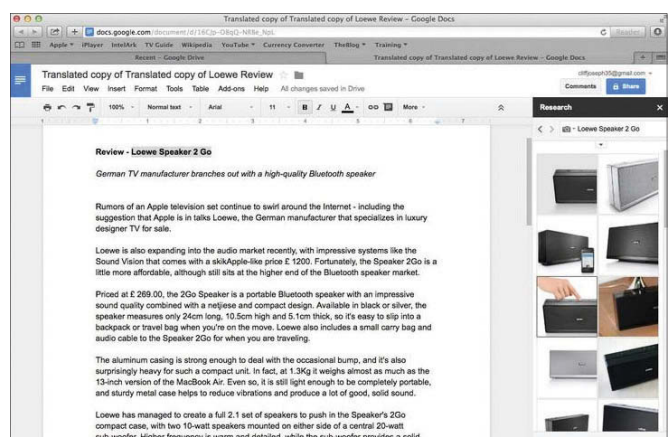
Price: Free

Company: Google, google.co.uk

Word processing: Google's iOS Google Docs app requires no internet connection, but if you're using a Mac you'll still need a reliable internet connection to use Google Docs online.

Google Docs is fairly basic but it provides all the main tools you need for simple documents such as letters and reports. The toolbar displayed at the top of each document gives quick access to formatting tools, alignment controls, bullet lists and other features. Google Docs cleverly incorporates other Google services too – a Research option uses the search engine to find images and other information relating to your document, and you can even translate your documents into other languages. It's annoying, though, that the word-count option is hidden inside a menu, rather than being displayed on-screen.

Page layout: Layout features are also fairly limited, but Google Docs has recently been updated and now allows you to import photos and graphics, crop and resize them, and control the way that text wraps around images. It's simple enough to drop a single image onto a page, but Google Docs isn't ideal for documents such as newsletters that need a bit more layout freedom when working with text and graphics.



Collaboration: Google Docs is good for online collaboration as it allows you to make your documents publicly available on the internet or to restrict access to just the people you specify. You can track the changes made to your documents, and there's even an online chat option so that you can talk to your colleagues as you work – although this does require participants to log in with a Google+ account.



iText Express

Price: Free from the Mac App Store (tinyurl.com/ns5g8y9)

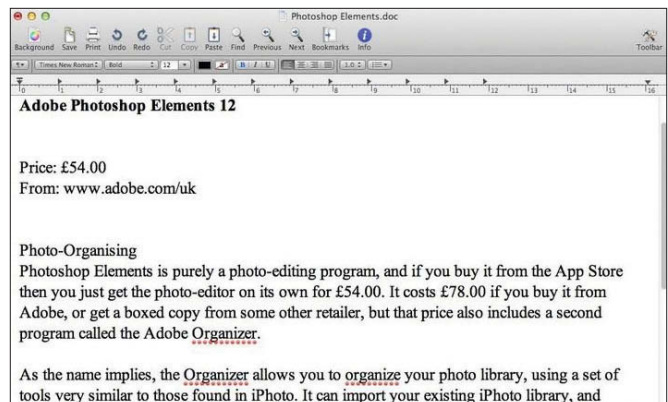
Company: Michiaki Yamashita, jp-lightway.com

Word processing: The free version of iText Express is more of an alternative to Apple's old TextEdit utility rather than a full-blown Pages rival. It is a quick and easy way to view and edit text documents, and can display ebooks in the ePub format.

The program focuses very much on simple word processing, allowing you to write notes and short documents quickly, and to perform basic tasks such as formatting text, adjusting alignment and checking spelling and grammar. There are some useful extra features, though, including a Styles menu that allows you to quickly format your text, bookmark specific points within the document, and create footnotes and endnotes.

The Pro version of iText, costing £7.99, offers additional features, such as the ability to customise keyboard shortcuts and a file browser for searching through documents stored on your Mac. Watch out, though, as the iText Ultimate program which is also available on the App Store is from a completely different developer and seems to be even more basic than iText Express.

Page layout: It's possible to copy and paste graphics into your text documents in iText, but the program doesn't really provide



proper layout tools that will allow you to move text and graphics elements around on the page. However, the developer of iText is Japanese, and the program does include options such as Japanese text-wrap and vertical writing, which might be useful if you don't want to pay for a more expensive word processor with multilingual support.

Collaboration: iText doesn't offer collaboration options.

LibreOffice 4.2

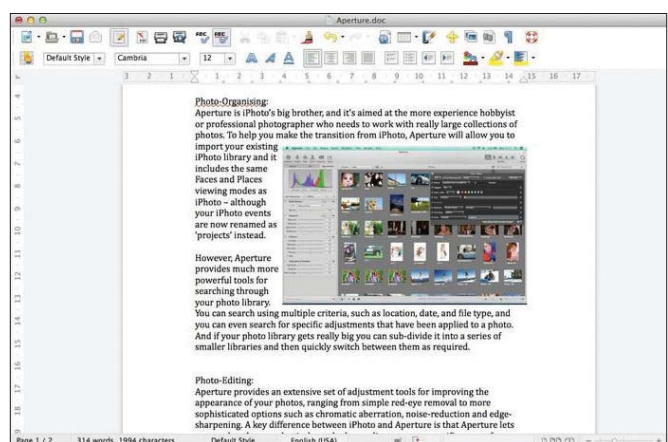
Price: Free (donations encouraged)

Company: LibreOffice, libreoffice.org

Word processing: LibreOffice is an open-source office suite with many of the same features as OpenOffice Writer. Its tidier interface might suit Mac users a little better.

Instead of OpenOffice's crowded palette and toolbar, LibreOffice has a simpler toolbar that provides a few key tools for formatting text, adjusting alignment and creating tables and lists. Other toolbars that you can show or hide hold additional tools, including search and form design – there's even a toolbar for creating spreadsheet formulae for tables. One admirable feature is a 'word completion' option – if you use the word 'document' a lot, say, then you can just type 'doc' and LibreOffice will automatically lengthen it to 'document' for you.

Page layout: LibreOffice has an impressive set of page layout tools. You can move multiple text and graphics elements around on the page, and a Web Layout mode shows how your document will look when converted into HTML web pages. A drawing toolbar provides simple drawing tools and flowchart graphics, and a 3D toolbar lets you extrude and rotate graphics in 3D. You can rotate text boxes too, so you have plenty of freedom to experiment with text and graphics effects.



Collaboration: LibreOffice has good options for tracking changes made to documents. It can store multiple versions of a document within a single file – although the file sizes can get a bit out of hand with this option. You can also track and highlight changes made to a document by other users but, like OpenOffice, LibreOffice doesn't allow people to collaborate on documents at the same time.

Microsoft Office

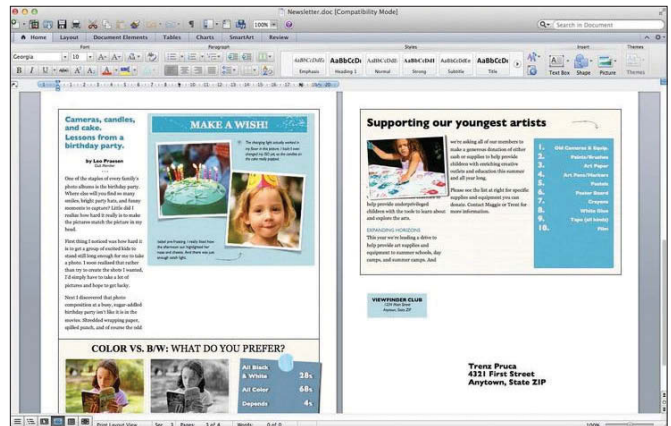
Price: Microsoft Office 2011, £109.99; Microsoft Office 365, £5.99 a month

Company: Microsoft, microsoft.com/uk/mac

Word processing: Microsoft Word is the industry-standard word processor used by millions around the world in business, education and at home. The current version of Word for Mac revolves around a special toolbar called the Ribbon, which sits right at the top of each document window. The Ribbon crams in an enormous variety of editing tools, from simple text formatting to citation and bibliography creation for technical manuals or scientific documents. You can turn it off and hide it away if you want, leaving behind a simpler, more streamlined interface.

Page layout: Word's Publishing Layout mode – similar to Page Layout mode in Pages – allows you to freely move text and graphics elements around the page. The program includes dozens of templates with attractive designs, and you can import photos and hand-drawn graphics, tables and charts. There are also some powerful graphics tools, such as the ability to arrange text and graphics on multiple overlapping layers.

Collaboration: As part of the Microsoft Office suite, Word is very much designed with collaboration in mind. Larger businesses can use Microsoft's SharePoint Server software to share



documents internally, but you can also upload and share documents using Microsoft's OneDrive cloud service. Within Word itself, the Ribbon's Review tools let you track changes to a document, and decide which changes you will accept or reject, as well as control the access others have to your documents. A free online version of Word is available as part of Microsoft's Office Online suite. A new version of Word is coming in 2015.

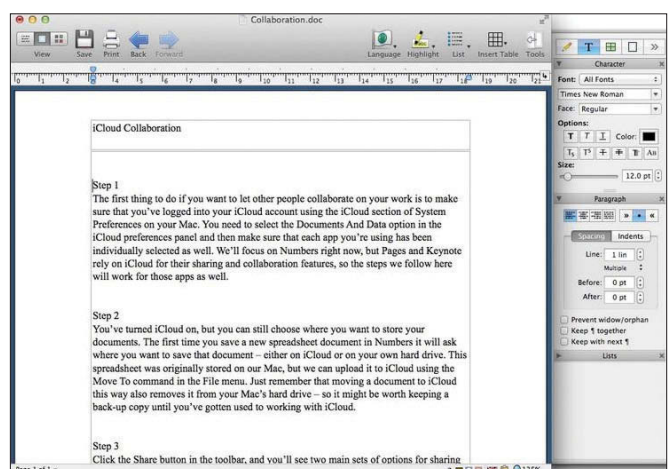
Nisus Writer

Price: Nisus Writer Express, \$45 (£28); Nisus Writer Pro, \$79 (£49)

Company: Nisus, nisus.com

Word processing: There are two versions of Nisus Writer, but even the basic Nisus Writer Express is still very much for seasoned writers who want precise control over long, complex documents. Footnotes and end-notes come within the program's ambit, and its PowerFind option goes way beyond the standard find/replace feature found in most conventional word processors – you can use it to locate words that end with 'ing', numbers of a specific length, or any type of currency symbol. Strong multilingual support also make it a good choice for people who need to work with other languages than English.

Page layout: Nisus Writer allows you to import graphics and photos into your documents, but it doesn't provide the freeform layout features of rivals such as Pages and Microsoft Word. It does, however, come with a powerful stylesheet option that can be used to control the appearance of multiple text elements within your documents. If you're writing a long technical manual, say, you can create a single stylesheet that specifies the format of chapter headings, subheadings and body text. That allows you to concentrate on writing each chapter and leave Nisus to handle all the formatting for you.



Collaboration: This isn't a strong point for either version of Nisus Writer. The Pro version lets you add comments and track changes, which will be useful when sharing copies of your documents with colleagues. However, Nisus isn't really designed for online collaboration in the way that Microsoft Word or Google Docs are.



OpenOffice Writer

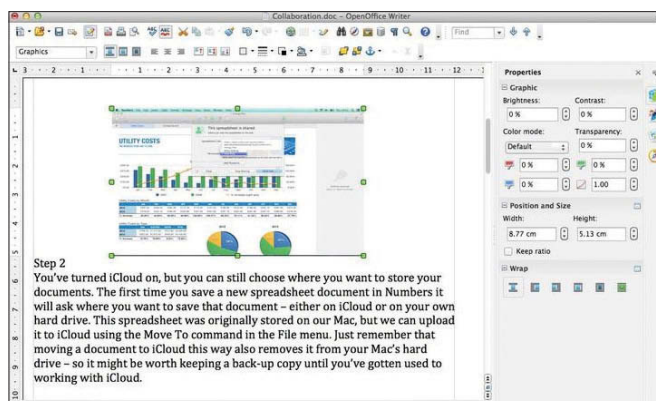
Price: Free

Company: OpenOffice, openoffice.org

Word processing: Writer is the word processor in OpenOffice, the popular open source suite. It looks daunting at first, with a Properties palette similar to the Inspector palette in Pages, and a customisable toolbar almost as crowded as Word's Ribbon.

But at least that allows Writer to put all its main editing tools right there on screen in front of you. There are the basic tools for formatting and editing text, plus useful extras such as predefined styles for paragraph text, entire pages and bullet lists. A handy Autotext option can automatically insert standard pieces of text and graphics into your documents, while a powerful search tool with a 'similarity search' lets you locate text that is similar – but not identical – to your selected text.

Page layout: Writer doesn't have a special layout mode like Pages or Word, so moving text and graphics around can feel a bit untidy. However, there are plenty of useful layout options, including good tools for creating tables and forms, and very precise options for wrapping text around graphics, including a contour editor for wrapping text around hand-drawn contours. There are some useful graphics tools too, such as the ability to adjust brightness and transparency.



Collaboration: This isn't really Writer's strong point. You can send someone a copy of your document, and then use Writer's tracking options to see what changes they make. There's also a comparison option that allows you to compare two versions of a document. However, the 'collaboration' section of the program's help files is completely blank and there doesn't seem to be an option for users to share and collaborate on documents online.

Scrivener 2.5

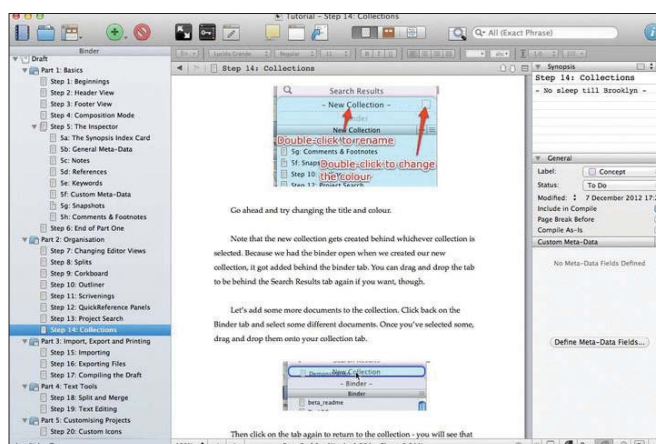
Price: £31.99 from the Mac App Store (tinyurl.com/kso7np9)

Company: Literature & Latte, literatureandlatte.com

Word processing: Scrivener includes a good set of word processing tools, organised around a simple toolbar that lets you quickly format text, adjust alignment, add comments and organise work in outline mode. It can automatically generate a synopsis of your current document, and a programmable name-generator will help create character names for that novel you've always been planning to write.

And that's a clue to Scrivener's target audience – the program is described as a content generator rather than a simple word processor. Instead of working with one document at a time, you can use the Binder palette to create projects that combine many different files and documents. If you're writing a textbook, you could have each chapter as a separate item in the binder, along with research materials, photos and web pages.

Page layout: You can import photos and graphics and insert them into your documents, but Scrivener is primarily about text. It doesn't have the freeform layout tools of Pages or Microsoft Word, so it's not the best choice if you want to experiment with layouts. Fortunately, there's a demo version available from the developer's website that you can try before buying.



Collaboration: Scrivener allows you to create 'snapshots' that record the progress of a project, while a Revision mode will highlight changes made to individual documents. However, your colleagues will all need their own up-to-date copies of Scrivener to share copies of your documents, and the complexity of its project-based file structure means you can't collaborate online as you can with Pages, Google Docs or MS Office Online.



Create an iMovie in 10 minutes

Steve Paris reveals how you can put together a short home movie in just 10 minutes

1. There are two options open to you and we'll explore them both (the second will be quicker than the first). Start by launching iMovie and if you haven't already done so, go to *File* → *Import Media* and add your movie. Next, click on the Create button and choose *Movie*. Select *No Theme*, name your project and you're ready to begin.

2. If this is the first time you've opened iMovie, the interface might feel a little sparse and daunting. Your clips will be shown on the left, a preview

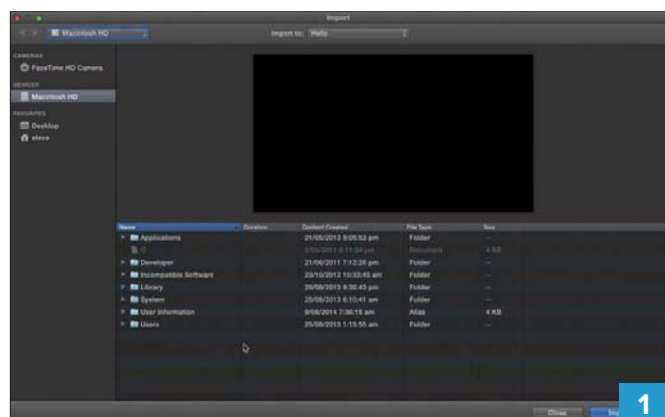
section is displayed in the top right and there's a large empty area at the bottom, which is where you'll be building your project. To do so, mouse over any clip in the upper-left section. As you move left and right, a preview of what is contained within it appears top right of the interface.

3. Click on a clip and a white vertical line will appear on it with a large '+'. Clicking on the '+' will add four seconds of that clip from the white line onwards to your project. To be more precise, click and drag to select the exact section you

wish to use. Once you've chosen a clip, you can also resize it by dragging its edges. When you're done, click on the '+' to include it in your project.

You can also drag the selection to the project yourself – this enables you to add it anywhere in your film.

4. Once in your project, those clips are still fully editable: move the cursor to a clip's edge and the slanted arrow will turn into two arrows pointing in either direction. When that happens, you can extend or contract your clip.





You can also reorder your clips by dragging them in new locations. To get rid of a clip, select it and hit the Delete key on your keyboard.

5. Transitions can be fun ways to give a definite visual break in your movie. To add one, click on *Transitions* in the left-hand column. Select the one you want from the list, and drag it in between two of your clips. To include a title, select *Titles* from the same column, choose your favourite and then drag it in. It will rest on top of your existing clips.

The placeholder text is automatically selected, so replace it and you're done. You can lengthen or shorten it in the same way as clips (as shown in Step 4).

To add a musical score, select *iTunes* or *GarageBand* to gain access to those applications' libraries.

6. If you have the time, it's possible to add visual effects to your clips, or even apply a little colour correction. To do so, select a clip and click on the toolbar's Adjust button to reveal a row of icons.



Among these is the filmstrip icon, which allows you to add visual and audio filters to your chosen clip with the help of drop-down menus (only one effect of each type can be added to a single clip).

7. Once your film's ready, it's time to share it with your friends, family and the online world. Click on the Share button, top left of the interface. You'll be presented with a choice of eight options, most of which are self-explanatory; YouTube, for example. Of the others, Theatre lets you save your finished film to iCloud where any of your Apple devices can access it, while File saves a copy to your computer, enabling you to share it to social media sites not included by default in iMovie's list of export locations.

8. If the above sounds too much work, don't despair as iMovie has another trick up its sleeve. When you clicked on the Create button back in Step 1, there was a second option available to you: *Trailer*. This offers a choice of 29 different genres. You can preview any trailer you

create by moving the cursor over it and clicking on its Play button.

9. Once you've selected the style of trailer you wish to use, the interface will change and the bottom section of the screen will be replaced by three tabs: Outline, Storyboard and Short list.

Outline allows you to type in any relevant information such as your movie's title and the credits, while the Storyboard tab is where all the fun lies: each trailer is built around specific requirements such as action shots. Short list displays these requirements in chronological order.

10. Select the clip that best matches what you want and a set length will be added to your project. The Trailer section will automatically move on to the next item on the list, so keep choosing clips and the trailer will be built as you go. Of course, this isn't a full movie and the eye-popping result may well get your friends and family asking you to create the actual film, in which case, you'll have to follow Steps 1 to 7.



Reviews

Free

Contact

■ Apple, apple.com/uk
Read more
■ tinyurl.com/nguwfv7

System requirements

OS X 10.6.8 or later, 2GB of RAM, 8GB of free storage

Perfect pass

One of the most exciting of all Yosemite's new features is Handoff, which brings the iPhone, iPad and Mac closer together.

Mac OS X Yosemite



One of the biggest talking points about OS X Yosemite is its new design elements. After all, iOS underwent an enormous redesign in 2013, so it was thought the same might be in store for Yosemite in 2014. And, indeed, some of the flatter, more minimalist aesthetic of iOS 7 has made it into Apple's new Mac operating system.

However, iOS and OS X have by no means evolved into a single operating system. While there are some shared elements (translucency, brighter colours, flatter icons, typography), the two are still quite separate. As Apple has previously pointed out, using a mouse and keyboard just isn't the same as tapping with your finger.

So while there's been a design overhaul in Yosemite - with the 3D design elements replaced by flatter, more colourful surfaces - the interface changes suggest that

Apple still intends to keep iOS and OS X separate.

Visual changes

One of the most obvious changes to the OS X interface is to the red, yellow and green buttons used to close, minimise and expand windows. These buttons are now flat circles and when you hover over them, the green button will show a symbol for full-screen mode. You will still be able to increase the size of a window as before, but you will need to press the Alt/Option key when you click the green button. Press the Escape key to return to the normal view from full-screen view.

This makes sense - the old enlarge button was a little redundant and the full-screen icon hidden over the other side of the screen and away from the other tools that performed a similar function.

Another change is the way Apple has simplified the menu bars. With

most Macs a lot wider than they are tall, Apple has made more of the limited screen height available by reducing the height of many window title bars in Yosemite. Those red, yellow and green buttons have dropped down so they don't use up a whole line of screen space.

In Safari the buttons now appear on the same level as the address/search bar. Merging the toolbar and title bar will also help people working on a cramped 11in MacBook. Our only concern is that the title of a page in Safari, and the name of the document you have open on in your word processor will not be visible either. More on this below.

Retina clues

Elements of Yosemite appear to have been developed with the new Retina displays in mind. Changes include using Thin Helvetica Neue as the system typeface rather than Lucida Grande. The thinner font is

Macworld



great on Retina displays, but system fonts on our 2009 iMac seem a little blurry now.

Other design changes include greater use of transparency. Some interface elements are semi-opaque so that a blurry version of the window behind can be seen. For example, the menu bar at the top of the screen is opaque, and the Messages sidebar is translucent.

Some people are bound to hate the translucent elements, even though it doesn't affect readability. If you're one of them, you can reduce the transparency effect by going to System Preferences, choosing Accessibility, then Display, then Reduce Transparency.

Look at the menu bar at the top of the screen and you will notice the Wi-Fi icon is thinner, and the battery icon on a laptop looks like the iOS battery icon. You'll also notice that the blue buttons in dialog boxes are flatter, and in a different shade of blue that no longer pulses.

Dock and icons

A redesign of the icons has produced a more attractive bin than the wire trash can, and the Finder icon looks a whole lot more smiley. An iOS-style, friendlier facelift has also been given the iTunes icon, which is now red and closely matches that of iOS, as does the Safari icon. System Preferences is now just one cog rather than three, Preview is now a generic seaside scene rather than a plastic-looking child, and so on.

A few icons have changed but without getting closer to their iOS counterparts. Calendar still looks like a desk calendar but a more modern one, Calculator has more detail than the iOS icon, and Messages is a blue speech bubble rather than a green one.

Translucency can also be seen in the Dock, which no longer looks like a 3D shelf. It is simpler and flatter, with a black dot below an application to indicate it is running rather than Mavericks' subtle glow.

Notification Center

Notification Center no longer slides a Mac's entire interface off to the left as it appears from the right. Now, it slides in on top of the right side of your screen, overlapping folders on your desktop, or any apps running on that side of the screen – you can't activate Notification Center in full-screen mode.

As in iOS, there are now two tabs at the top of Notification Center: Notifications and Today. The new view is better than the muddle of pointless notifications in Mavericks.

All the new additions to Notification Centre can be found in the Today tab. As it does in iOS, Today gives you an overview of what is happening today, including Calendar appointments. It also

widget settings – for example, adding or removing cities from World Clock or Weather.

Many widgets are still available in Dashboard, but with the arrival of widgets in Notification Center it looks like there will be no need for Dashboard, which dates to 2005.

Spotlight

Like Dashboard, Spotlight arrived with OS X Tiger back in 2005. In Yosemite it gains a new look and much more functionality.

Although the Spotlight icon remains in the top right of the screen, when you click on it the window now opens in the middle of the screen, rather than just below the icon. This allows more space for results, but it does seem



On the level The three window control buttons now appear on the same line as the URL/search bar.

includes an Edit button. Click this and a second column will slide out beside Notification Centre showing a complete list of items you can add to the Today view; you can also use this list to pick items to remove from the Today view and reorder the ones that are included.

Things you can add to the Today view includes widgets such as Stocks, Weather, Reminders, Calculator and World Clock, and the new Social (for posting to Facebook and Twitter). More are likely to become available as time goes on. There are already some on the Mac App Store such as one for changing monitor brightness and a battery diagnostics widget. Widgets can be downloaded and added to the Today view, and apps can also export widgets there.

Some of these widgets can be configured. If you hover over a widget you will see an *i* in a circle; click it and you can change the

disconnected from the source. However, you don't have to click on the icon to initiate Spotlight. As in Mavericks, you can hit ⌘-Spacebar to open it.

At first Spotlight was quite slow in Yosemite, perhaps because the system spent a few hours re-indexing. When we repeated a search, Spotlight was a lot quicker at showing the location of the search target.

Spotlight results are sorted by file types, and there's a large preview window on the left. Highlight the result you want, click Return, and Spotlight will then open the file.

As you type your search, text is auto-filled. It's perfect if you want to launch an app this way. Type 'Cal' and 'Calendar' will appear, so you just have to tap Return to open it.

Wait a few seconds longer and Spotlight will expand to show detailed results from numerous data

Rocking the Dock

Simpler, flatter, but also translucent.





Little helpers Some of the widgets currently available in Dashboard.

sources including news headlines, maps, the App Store, iTunes, Wikipedia and Bing's web search (take that, Google!) although Bing search results didn't always appear in our Spotlight window.

A search for a location returns a map including tools to find directions to the location. You'll also be able to do things like send an email or make a phone call from the Spotlight interface.

Spotlight also supports unit conversions, from fahrenheit to centigrade, or dollars to the pound.

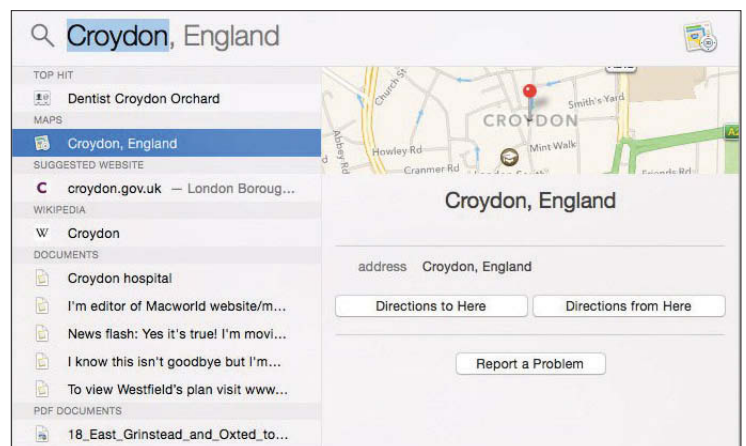
There are some limitations compared to US Spotlight search results. Over there if you search for a movie you can expect to get 'Now Playing in Theatres' results with movie poster, Rotten Tomatoes rating, run times, trailers and more. Not in the UK, though.

It may also be that Spotlight results will now be a little overloaded with Wikipedia links and other web-based data rather than a lost file you're looking for. Only a few results appeared in the Documents section in our searches – for example, a search for 'The' found only five document results and we are pretty sure we have written that word a few times. Clicking on Documents will bring up more results in a Finder window.

Calendar

New features in Calendar are few but worthy of note. The month view is now almost identical to the Calendar in iOS 7, with the Today and Month details switching sides from Mavericks.

Calendar will learn from previous events you have set up to help with detail autocompletion. If you



Spotter's badge A Spotlight search for a location returns a map of it with direction finding tools.

regularly hold a meeting with team members, then it will start offering to invite the usual attendees.

The week view is also reminiscent of iOS 7, and there's an all-new day view with a single schedule pane plus a much more spacious than before inspector pane that shows the details of a selected event.

Mail

There are only a few slight interface changes to Mail. For example, the Show/Hide toggle in the mailbox list is now labelled Mailboxes. Underneath the surface, though, there has been a much needed upheaval, with some useful time-saving features added.

The first of these is the ability to notate a PDF or image from within Mail. This Markup feature is supposed to allow you to annotate images and PDFs from inside Mail, and is more complicated to use than you might expect.

For example, we had to drag and drop a PDF to an email before we saw tools to mark it up. Certain that it couldn't be that the only way to make Markup work was to grab a PDF sent to you and reattach it by dragging it back into Mail, we discovered that 'Include Attachments from Original Message' had to be selected before clicking Reply. But even this didn't work every time we clicked Reply.

Still, with this much messing around you might as well be editing in Preview after all. When Markup is working as expected, you should see an icon appear in the top-left of the preview of the PDF or Jpeg you have been sent. Click this icon and select Markup, and the item should zoom out into a separate window, with a toolbar above it.

Markup includes a signature tool that lets you use your laptop's trackpad to create a signature – or you can sign your name on a white piece of paper and hold it up to the camera (although it's very difficult to click Done because the paper covers the result). There are also various tools for straightforward squiggles,

shapes, text and text formatting, speech bubbles and a colour picker. However, you will not be able to edit the actual text in the PDF - for that you need a dedicated PDF editor.

Markup could be handy for drawing attention to certain elements and for signing documents. But its tools are not simple to use. It feels like using a separate program but without access to the accompanying email. If you want to jot down some questions about the PDF in a reply email, for example, you can't while Markup is open.

Markup is a great example of the Extensions technology that lets code from one application appear in another application's window. Hopefully Apple will figure out how to make it work better soon.

Mail Drop

Mail's other new time-saver is Mail Drop, which will automatically upload an attachment larger than 5MB to iCloud when you try and email it. When the recipient receives the email, the large file will

doesn't have Yosemite, then they will receive a download link for the file.

Before Yosemite the only way to share oversized files was to upload them to Dropbox or use a file sharing service like Mail Big File. This was easy enough but wasn't something you could do in one step - inevitably you had to upload the file, and then cut and paste a link for the download into the email you were sending, hoping the person at the other end would download the file.

With Mail Drop, the recipient has 30 days to download the file before it disappears.

Safari 8

Yosemite has the latest version of Safari with its simplified new look. The clearer, cleaner interface is designed to make navigation simpler. The red, orange and green buttons have dropped down to the same level as the address/search bar and the forward/back and share icons.

As a result there is a lot less space for the full URL so you will only see the name of the host - you

expect don't appear to be there.

They are, though. The first time we opened Safari it showed an iOS 8-like grid of our favourites, with icons instead of the menu bar. If you prefer the Top Sites view, click on the icon on the top right - the star is for Favorites, the grid of dots for Top Sites.

Favorites may have the edge as all you have to do is click in the smart search field and you will see a drop-down menu with all your favourites. Handy. The one failing is that it shows up only when you are already on a web page - you don't see the dropdown favourites in Top Sites view.

Tab view

There is yet another view to choose from in Safari 8. You can see previews of all the tabs you have open by clicking the icon on the right (two overlapping squares). This will give you a bird's-eye view of all your open tabs pages on all your Apple devices. If you have opened multiple pages on one site, those tabs will be stacked. Close some browser windows on your iPhone and the new status will be quickly replicated on your Mac's Safari.

Unlike the similar feature in Mavericks, Tab view can't be accessed by pinching on the trackpad. This is no bad thing as the pinch action is associated with zooming in on images.

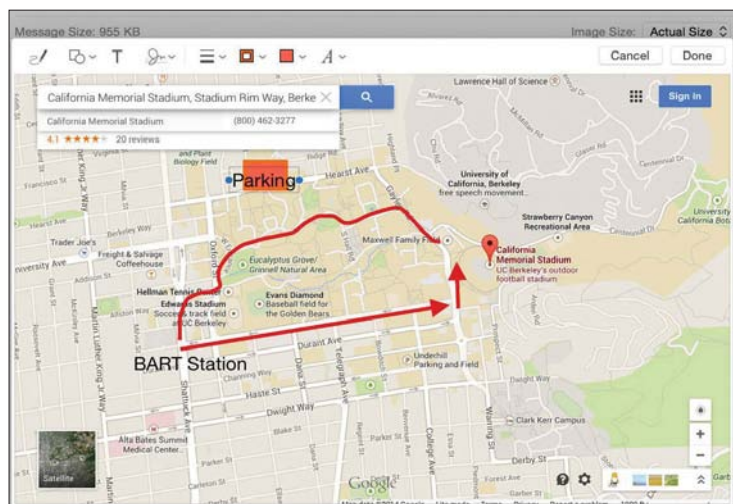
The addition of iCloud Tabs to Safari on the Mac could certainly prove useful.

With all these new views in Safari 8, in particular the easy accessibility of favourites, the sidebar that shows Reading List, Favorites and Twitter may come in for a lot less use.

Speaking of Twitter, sharing is designed to be simpler in Yosemite. When you click the Share icon (now identical to the Share icon of iOS) to share a web page you also see a list of recent recipients, so you can send to one of them with a single click. It's useful that once you have forwarded a web page to a group you can select that same group again another time. It would be even more useful if it was labelled slightly differently, but at least it's a move in the right direction.

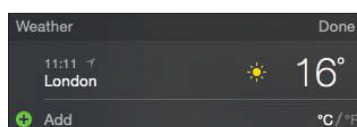
Marks of greatness

For all its limitations, Markup (main picture) is a great example of Apple's new Extensions technology, while (below) some of the widgets in Notification Center's Today view are configurable.



automatically be downloaded - as long as they are on Yosemite.

We sent a 5.6MB folder from one Mail account to another, and it appeared in the other account as a zip file before gradually downloading. Once downloaded, the zip turned into a normal folder icon. It was a lot easier than uploading and downloading from Dropbox. You can drag and drop the folder onto your Mac, or just open it from within Mail. If you send it to someone who



only see the full URL if you click on it. So if you are visiting, say, apple.com/uk, all you will see of the URL is apple.com, and could easily end up wasting your time on the wrong country website.

Toolbar minimisation also means that some of the features you might

What is more annoying for owners of websites is that users aren't merely emailing a link to the site but that Apple is scraping the text in its entirety from the Reader view of the page. So basically Apple is allowing users to scrape and share web pages without the recipient ever having to visit that web page. You do get various choices as to how you share the information, be it as a web page, PDF or link only. While this isn't a new feature as such in Yosemite - it also existed in Mavericks - it's annoying for us at Macworld. We need people to visit our website because otherwise we will be out of jobs!

The way that the web page is rendered in Mail will depend on the way that it was constructed in the first place.

As for your Shared Links view, where you can see Twitter posts (and LinkedIn if you ever set that up), this will now include the RSS feeds you have signed up for. Just click on Subscriptions at the bottom of the Shared Links view, find the RSS feed you wish to add, and agree to add it to your Shared Links. Now you should see any new content added to that website.

One useful enhancement to Safari in Yosemite is the autocomplete options when you type in the URL/search bar. Safari will search Wikipedia, Maps, iTunes and

news, just as in Spotlight. It makes using the browser as a reference tool easier. You can jump straight to a Wikipedia page, for example.

As with Spotlight it's a little random. Sometimes you will see a Wikipedia result, other times you won't. Sometimes you will see a suggested website in the results, other times you won't.

Private browsing

Those who are concerned about just how much Google knows about them might like the new private browsing mode, which creates a new private window for browsing the web. A feature in Google Chrome for some time, private browsing allows you to search privately. The contents of your window and your web page history will not be saved and your cookies won't be shared. You can tell if you are using a private window because the address bar is dark.

To browse in private, choose the New Private Window option from Safari's File menu. You can open up multiple tabs in this window and those tabs will not appear on other iOS devices.

Private browsing won't completely obscure your browsing habits, though. Your device's internet address and other basic information about your computer will still be passed on to servers.

Apple will also integrate the DuckDuckGo search engine, which is committed to not collecting or tracking the personal information of its users. To set up DuckDuckGo, Bing or Yahoo as your default search engine, go to the Safari menu, then Preferences, and select Search.

System preferences

We were hoping for a bit of a simplification of System Preferences, but apart from new-look icons and menu (a back button rather than Show All) and the new Extensions tab - which allows you to enable and disable the extensions that appear in the Services and Share menus and widgets for Notification Center's Today view - little has changed.

You have to dig really deep to find a few new things, such as Scrapbook and Snapshot options in Screen Saver, which allows you

to choose from Apple's beautiful desktop images, or your own recent iPhoto events. Scrapbook didn't work at all for us, but via Snapshot we were able to show photos from a recent holiday. Rather than adding random Scrapbook options to an already crowded variety of ways of seeing your own photos as a screen saver it would be useful if Apple allowed a photo album rather than an event to be selected; still, it will all probably change in the new year with the arrival of Photos for Mac.

Other tweaks include the ability to see Dashboard as an overlay rather than as a separate space, so you can see your widgets in front of the windows that you have open. This is a great idea, but seems a bit pointless now that widgets are in Notification Center.

New in System Preferences is the option to switch on Dark mode, which turns your Dock and the menu bar at the top of the screen dark. It may make a big difference if you work in a darkened room as your screen can be darker in general while still being usable (you can always turn down brightness too).

Energy Saver gets a new 'Enable Power Nap while on Battery Power' option which allows your Mac to check for emails and other updates even while it is sleeping.

These changes will not be enough for some. When we asked readers what they wanted from OS X 10.10 one suggestion was to make System Preferences more like Control Center. Apple may feel it would be a mistake to make System Preferences too easy to manipulate as users may then end up making changes they didn't mean to.

Continuity

Perhaps the most exciting of all the new features in Yosemite are those that bring the iPhone, iPad and Mac closer together. Apple bundles these new technologies under the banner of Continuity and they include features that aim to make it easier to work with, and switch between, all your Apple devices, both Mac and iOS. This collection of features being introduced for this purpose should also help the company sell Macs to iPhone users, and vice versa.

The best of your

web The iOS 8-like Favorites view in the Safari 8 browser.



The new features include AirDrop file transfer between Macs iPads and iPhones, and Handoff, which lets you switch from a task on the iPhone and complete it on either a Mac or an iPad, or vice versa. We'll start with AirDrop.

AirDrop

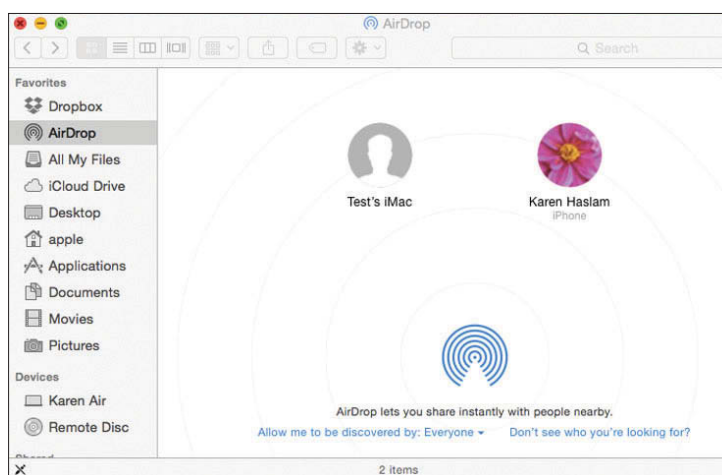
Apple has made AirDrop work between some Macs and iPads and iPhones – but not all, and in our experience it doesn't actually work all that well with devices that Apple claims it should work with. The AirDrop capabilities are still very much a work in progress and we experienced a lot of issues getting it to work with various devices that should be supported.

AirDrop arrived on iPhones and iPads iOS 7 as a way to transfer files between devices. It has existed on Macs for even longer, but Macs and iOS devices couldn't communicate due to differences in the technology (the iPhone and iPad use Bluetooth in conjunction with Wi-Fi, while the Mac just used Wi-Fi). As a result it wasn't possible to drop files easily from mobile to desktop or laptop. With Yosemite all that was supposed to change as long as you had a Mac bought after 2012 (or the 2013 Mac Pro), and an iPhone 5 or later, iPad (fourth generation), iPad Air, iPad mini, iPad mini with Retina display, and iPod touch (fifth generation).

We spent a lot of time trying to get AirDrop to work between a 2012 MacBook Air and an iPhone 5s, and when it finally did we were unable to maintain the connection reliably.

We had slightly more luck AirDropping files from our Mac to our iPhone. When we opened AirDrop on our Mac via Finder and chose to be discovered by everyone, we could see the iPhone in the Finder window, and dragging and dropping files onto it seemed to work OK. This is a handy way of transferring files to your iPhone – perhaps ones you want to work on during the commute home.

We found it possible to drag and drop Pages and Text Edit documents to our iPhone this way. Once received on the iPhone, the files opened in the relevant app. Initially error messages appeared when we



tried to drag Word documents to our iPhone, but this was rectified by the new iOS versions of those apps. One thing worth saying about AirDropping files this way is that it's quicker and easier to copy files to the iPhone via iCloud Drive. Rather than spend half an hour trying to get AirDrop to work, just drag files to the iCloud Drive folder on your Mac and then catch your train.

We often need to transfer screenshots taken on the iPhone to our Mac – and many people would probably find it useful to drag and drop their photos from their phone to their Mac. Doing this wasn't straightforward, though. When we turned on AirDrop on the iPhone, the Mac couldn't be seen. We tried all sorts of things to get the Mac to show up and only got it working eventually after introducing a new 5K iMac we had on review into the equation, on an 802.11ac network.

We have no idea if this somehow kickstarted things, but we were subsequently able to see the Mac in the AirDrop options on the iPhone. However, we won't be switching to transferring images from our iPhone to our Mac by AirDrop any time soon; it's quicker to grab a cable and use Image Capture. It's a shame but AirDrop just doesn't live up to expectations. It is improving, though, so there's hope for the future.

Handoff

AirDrop isn't the only feature that should provide better integration between your Apple devices. If you are running Yosemite on your Mac and iOS 8 on your iPhone, the

software on both devices will be aware of some of the actions you are performing on the other. For example, if you are composing an email message on your iPhone, and your Mac is nearby, it should be aware of this and the Mail icon in the Dock will prompt you to continue composing the message on the Mac.

Similarly, if you are browsing a web page on your Mac, you will see a Safari icon in your iPad's lock screen which will give you easy access to the same page on your iPad.

In practice we had similar problems to the ones with AirDrop, in that the process seemed to work one way but not the other.

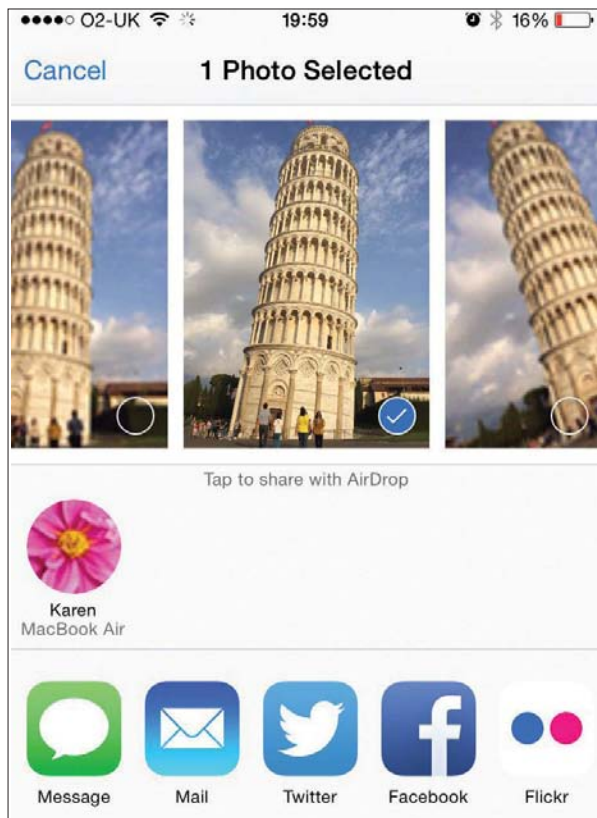
Halfway through composing an email in our iCloud account on our iPhone, we looked to our Mac screen, and lo and behold there was an extra Mail icon to the left of the Dock indicating that there was an email that could be opened and continued with on the Mac. Click that icon and, as long as the iPhone remains awake when the Mac attempts to load up the in progress email, you should be able to continue drafting your email from your Mac. When our phone was asleep, Mail just hung searching for the email and we had to quit the app. The other slightly annoying thing was that the email kept its 'sent from my iPhone' signature.

Could we get the email to hand back from our Mac to our iPhone? Waking the iPhone, we expected to see a icon on the lock screen indicating an in progress email on the Mac, but there was nothing. This might be an issue if you need to

AirDrop on Mac.



Today The new tab in Notification Center.



Pisa cake? The promise of AirDrop is that you can drag and drop photos from your iPhone to your Mac, but the reality is much more awkward.

get the email back to the iPhone to continue drafting, because once it's gone to your Mac it seems you can't get it back and the only solution is to continue drafting it on your Mac.

This may be the way Apple intends it to work, but the opposite appeared to be true in Safari. When we were reading a web page in Safari on our Mac, we turned to our iPhone lock screen and saw a Safari icon, tapped on it and unlocked the iPhone, and then the Safari page we were viewing on the Mac opened. This worked once but couldn't be made to work again at all. In fact, we started to wonder whether we'd imagined it.

After leaving a web page open on the iPhone for a few minutes, we noticed the extra icon pop up beside the Dock, which allowed us to view the web page on our Mac. Things seemed to work in that direction without issue.

The issue may be the time it takes for the devices to form a connection, and the fact that to save battery life and to maintain security the iPhone had been set to go to sleep after a minute of inactivity. But even after changing that setting, the

Safari icon never appeared on the lock screen again. It's a mystery, and the more we try and get this stuff to work, the more we feel like we are beta-testers.

Phone calls

After all the trouble we'd had with the other Continuity features we didn't hold out much hope for the ability to take and make phone calls from a Mac. Yet it worked the second time we tried - the first time the Mac reported that the iPhone wasn't on the same network, although it was.

Placing a call from a Mac should be just a case of opening contacts and tapping the phone handset icon, or clicking on a number on a web page. The sound quality is iffy, and it seems unlikely that many people will use it in a busy office, but it's a great feature if not all that practical. It's more of a novelty feature that could become a problem if your Mac starts ringing every time you get a call on the mobile phone in your bag - or worse, if your Mac starts ringing and you aren't at your Mac at the time. People are likely to be a whole lot more curious about a Mac ringing than they would be a phone.

If you are at your Mac, taking a call is easy. When our phone rang, a few seconds later the Mac joined in. After Accept had been clicked on our Mac, the phone continued to ring for a couple of seconds more but the connection was there and we were able to take the call on the Mac.

When we didn't answer the call both the phone and the Mac showed a notification that we had a missed call. We were able to open Notification Center on the Mac and return the call. All very smooth. If only the other Continuity features worked as well.

SMS text messages

One final feature under Continuity is SMS text messages. With the arrival of Yosemite you will also be able to view SMS messages on your Mac, not just iMessages that come in from the Apple servers. This will mean that even text messages that come in from your friends who don't use iPhones will be viewable on your Mac (and you will be able to reply to them from there).

Messages

That's not the only change to Messages. A new Soundbites feature lets you save short audio clips to send to friends. It's the same Soundbites in Messages in iOS 8 and is activated via a microphone button next to the chat window. Click the microphone and you will be able to record a brief audio message and send it via iMessage.

To leave or receive a Soundbite you would probably want to be in a reasonably quiet location where you were unlikely to be interrupted, and in such circumstances you might as well phone. It's why most people type text messages rather than use the built-in dictate function. Still, you might prefer to send a quick audio message rather than phone and disturb your recipient.

These Soundbite features are likely to be more popular in countries like China, where typing is more complicated and so sending voice messages is popular.

In our testing Soundbites worked well, although the audio quality wasn't great. As with phone calls placed via our Mac, the audio was more like a poor telephone connection than computer audio.

Soundbites that appear in Messages don't give much away either - all you see is a bubble with the play button and the waveform. If you wanted to track down a particular audio message it would probably be a case of listening to a few until you found it. We'd like to see Apple integrate its voice recognition technology into this so you could search the Soundbites.

Soundbites isn't the only new feature in Messages, though. Group iMessaging also gets a boost. Group messages have a new Details button, which, when tapped, brings up a number of options. These options include the ability to share your locations using the Find My Friends infrastructure and a shortcut to a map that shows where everyone taking part in the conversation is located.

You can also place a phone call, start a new chat, FaceTime your friends, or add and remove participants from the Details window. You can also give the

chats a distinct name to make locating them easier, such as 'bank holiday plans'.

One popular feature is likely to be the ability to leave the conversation, or just turn off conversation notifications. If you have talkative friends you can select Do Not Disturb on that particular conversation and you will no longer receive a notification every time someone in that discussion replies.

iCloud Drive

One final addition to Yosemite that will make it easier to move from iPad or iPhone to Mac (or Windows PC) and back is iCloud Drive, Apple's answer to Dropbox.

iCloud Drive lets you save and store all your presentations, PDFs, spreadsheets, images and other documents in iCloud. You can access these files on all your devices, and everything will be kept up to date, whether you access them from your iPhone, iPad, iPod touch, Mac or PC.

You can access files stored in iCloud Drive in any supported web browser at iCloud.com, on your Mac via Finder, on a PC running Windows 7 or later and iCloud for Windows 4.0, or on your iPhone, iPad or iPod touch running iOS 8.

If using iCloud.com you can click on a file to open it in the relevant iCloud-based app - for example the web version of Pages - or you can select the file and click on the Download icon to save it to your Finder. This is a handy way of getting files onto a computer you don't usually work on.

However, remember that once out of the cloud that file will no longer be kept in sync across your devices. Nor is this a way to share files with friends as they would have to log onto your iCloud account. Instead Apple has introduced the Mail Drop feature mentioned earlier as a way to share files simply.

When you turn iCloud Drive on, you will notice a new feature called Look Me Up By Email. This feature doesn't seem to do a great deal at the moment, but as Apple expands the iCloud.com sharing features it will enable people to look you up (and share documents) using your iCloud.com email address.

You can also access a file in iCloud Drive from Finder on your Mac. Go to Finder and choose iCloud Drive. It's slightly confusing to find that some files in iCloud Drive have the words 'In iCloud Drive' beside them while others don't. Presumably the status depends on which device the file was created on.

There is also more flexibility for creating iCloud Drive folders in Finder, which can make it easier to locate files that are associated with particular projects.

One of our issues with earlier versions of iCloud was that every file you ever create in Pages lives in a folder in Pages, and over the years it becomes full of random files that make locating the one you need frustrating. Apple has spent the past few generations of Mac OS trying to change our filing habits, encouraging us to rely on Spotlight to locate files rather than folder-based filing protocols. Yet many people will still want to be in control of the way they group their files.

Nor is iCloud Drive limited to files that have partner applications on the different Apple devices you own. You can now store any type of file smaller than 15GB in iCloud Drive; everything is kept up to date across all of your devices.

There is no equivalent to Finder in iOS and hence no way to browse your iCloud Drive file structure on an iPhone or iPad. Here you will find the same system as before, with all your Pages files shown when you open the Pages app. However, now even those that are saved in project folders you have created on your Mac will appear in the list. We'd love for Apple to introduce a way to view the iCloud Drive from our iPhone

so that you can locate the files you want and open them in the relevant application, but Apple prefers for us to do things the other way round.

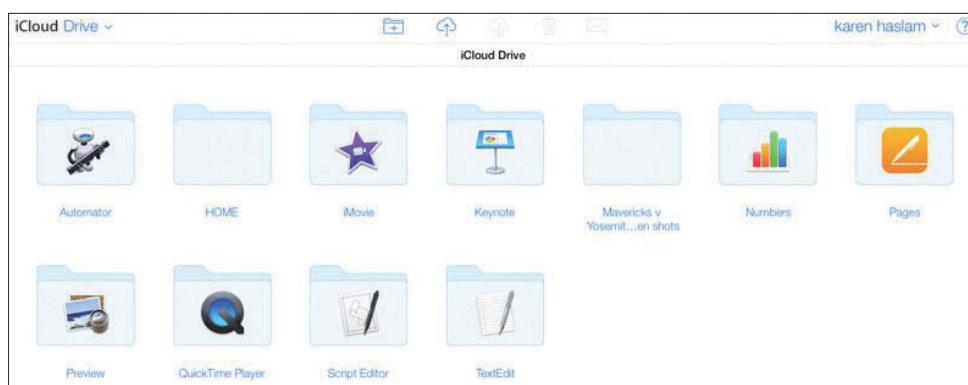
There is some more flexibility in iCloud Drive for iOS, though. The difference between iCloud as it was in iOS 7 and Mavericks and iCloud Drive in iOS 8 and Yosemite is that files are no longer locked inside the application they were created in. You can now access a file from one application and use it in, or open it in, another compatible application.

For example, you could create an illustration in one app and insert it in a document in another. Having created a Yosemite Review folder in Finder on our Mac and added various screenshots, we were then able to open a Pages document on our iPhone and insert a screenshot from this folder just by tapping + (Plus) and choosing the 'Insert from' option, which revealed the iCloud Drive folder structure as seen on our Mac.

Verdict

It's unfortunate that we struggled to get many of the Continuity features to work in Yosemite, as they were the ones we were most excited about. However, it seemed that Mac and iOS Continuity became more reliable as we spent more time with Yosemite. Over time we hope the initial issues with these features will be rectified. There is a lot of good in Yosemite, but the flagship features offer the biggest difference when compared to Mavericks, and without them it is hard to view the update as anything more than a much needed update to the Mail app, and some nice new icons (and some people don't even like them). **Karen Haslam**

Anything Dropbox can do... You can access files stored in iCloud Drive in any supported web browser on your Mac.



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System information

27in (diagonal) Retina display with IPS technology; 5120x2880 resolution with support for millions of colours; 3.5GHz quad-core Intel Core i5 processor (Turbo Boost up to 3.9GHz), configurable to 4GHz quad-core Intel Core i7 (Turbo Boost up to 4.4GHz); 8GB (two 4GB) of 1600MHz DDR3 memory; four SO-DIMM slots, user accessible, configurable to 16- or 32GB; 1TB Fusion Drive, configurable to 3TB Fusion Drive or 256GB, 512GB or 1TB of flash storage (SSD); FaceTime HD camera; headphone port, SDXC card slot, 4x USB 3.0 ports, 2x Thunderbolt 2 ports, Mini DisplayPort output, Support for DVI, VGA and dual-link DVI, 10/100/1000BASE-T gigabit ethernet (RJ-45 connector), Kensington lock slot, 802.11ac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible; Bluetooth 4.0; 51.6x65x20.3cm; 9.54kg

Macworld



EDITORS' CHOICE

Apple 27in iMac with Retina 5K display (3.5GHz, 1.1TB Fusion Drive, late 2014)



It's hard to see the new iMac with Retina 5K display as anything other than a breakthrough in desktop computing. We've only had Retina-class displays since the iPhone 4 was launched in June 2010. Defined as pixel density so high the human eye cannot see any single pixel at the normal operating distance, this innovation later transferred to the iPad in March 2012, and then Apple's notebooks - aptly if long-windedly named the MacBook Pro with Retina display.

A 13- or 15in display may be a perfect size compromise for many laptop users that need to carry their computing with them. But if you need to build a more permanent desktop workstation it makes sense to give yourself a large and comfortable canvas. And with this new iMac model, that Retina canvas now stretches to 27 inches along the diagonal.

The style and design of the new iMac is identical to that introduced two years ago, when Apple slimmed the screen edge to a vanishing 5mm; and more importantly removed the

obstructing sheet of front glass to radically reduce reflected glare from the glossy panel. The top surface of the bonded TFT/glass assembly is also treated to a thick anti-reflective coating, also used on the MacBook Pro with Retina display; and now also the iPad Air 2 (read our review on page 71).

This new Retina-class all-in-one PC shifts resolution from an already high 2560x1440 to a staggering 5120x2880 pixels. Alongside the upshift in the number of pixels packed into the panel comes improvements to the construction of the oxide thin-film transistor (TFT), and the compensation film above, to regulate how light exits the panel. This is to ensure that when viewed from an angle the image remains consistent, as we've now come to expect from IPS displays.

A new Intel processor powers the iMac with Retina display, a quad-core Core i5, and this can be configured if required with an Intel Core i7 running at 4GHz. As standard you get 8GB of system memory, which can be user replaced

up to a maximum of 32GB. As standard, you get a Fusion Drive of 1TB capacity comprising PCIe flash drive with 3.5in SATA disk. Or you can opt for pure flash memory, either 256GB, 512GB or 1TB.

The graphics processor that powers the new screen - and additionally up to one more connected 4K display - must be capable of delivering enormous amounts of graphics data bandwidth. In contrast to last year's nVidia selection, Apple has this time chosen the AMD Radeon R9 M290X graphics processor, coupled with 2GB of video memory.

The R9 series represents AMD's top consumer graphics cards for desktop PCs, but look for the 'M' prefix here, which denotes that this is a mobile processor, integrated on to the logic board and originally designed for high-end laptops.

Other specifications for the iMac Retina 5K remain the same as last October's refresh, although the two Thunderbolt ports have also received a welcome upgrade to Thunderbolt 2 standard.

Thunderbolt 2 doesn't deliver any more net speed than the original Thunderbolt port. It does, however, conveniently bond two existing 10Gb/s full-duplex channels within each cable into a single high-speed 20Gb/s line.

Price of the iMac with Retina 5K display starts at £1,999 in the UK. Substituting the 4GHz processor brings the price to £2,199, and the higher-spec AMD graphics another £200 again. If you want to max out the spec with best CPU, GPU, RAM and storage, you'll need to get ready to hand over £3,519 for what promises to be the most irresistible all-in-one available anywhere.

Lab test

As we've seen with other recent iMacs with quad-core processors, the entry-level iMac with Retina 5K uses a straightforward 4-core/4-thread Intel Core i5 processor. Contrast that with the 15in MacBook Pro range, and the previous generation of Mac mini, which use Intel chips with Hyper Threading Technology. With Hyper Threading, twice as many threads as physical core can be processed together, turning a quad-core into a virtual eight-core computer, for example.

This preamble is to explain why, in the Geekbench 3 test of raw processor and memory speed, the multi-core results of this Retina iMac are slightly behind those of the current best MacBook Pro. And that's despite this iMac using a desktop-class chip that's clocked a whole 1GHz higher than the 2.5GHz Retina-display MacBook Pro notebook.

In single-threaded operation, the iMac's score of 3877 points was superior to the 3658 point score of the 15in MacBook Pro 2.5GHz.

But in multi-thread mode, the iMac scored an average of 12,418 points, while the MacBook Pro could stretch as high as 14,360 points.

Cinebench results were good, if again trailing the MacBook Pro with all its hyper-threaded cores blazing. Version 11.5 of Maxon's graphics rendering test returned results of 1.64 (single-core) and 6.15 points (multi-core). The MacBook scored 1.55 and 6.48 points here respectively. Using

version 15 of Cinebench the iMac scored 143 and 544 points (MacBook Pro 134 and 599 points).

It's swings and roundabouts in overall processor performance, depending whether you're focused on a mono- or multi-threaded operation. All told and balancing the single- and multi-core modes' relative speeds, we'd say that in overall CPU and memory speed this iMac compares very closely with the Core i7-powered flagship MacBook Pro.

Graphics performance

With 14,745,600 pixels to coordinate - in short, around 14.7Mp - the graphics subsystem of the iMac Retina 5K has got its work cut out.

To power this new panel Apple developed a new timing controller (TCON) with LCD silicon specialist Parade Technologies. The DP665 TCON employed here is said to have four times the bandwidth of the previous model, which itself was channelling four lanes of embedded DisplayPort 1.3, in order to handle 40Gbit/s of data flow.

As with all other Apple products with Retina-class displays, the iMac display is used in HiDPI mode, where the native horizontal and vertical resolutions are exactly halved as far as the user is concerned. So here the 5120x2880 pixel counts are rendered on-screen like a 2560x1440-pixel display.

That 2560x1440 resolution is the same size as the previous 27in iMac models, and so the true 218ppi pixel density appears to the user like the 109ppi desktop of the non-Retina iMac - but with all screen fonts and graphics effectively rendered much sharper.

We started with the pro workstation test of graphical horsepower, Cinebench 11.5, which returned a result of 45.1fps in its hardware-accelerated OpenGL test. That's fractionally behind the 48.2fps result of our benchmark MacBook Pro. Stepping up to the current version 15 of Cinebench, the iMac's 91.7fps put clear space between it and every other Mac we've tested in the last few years. And that's including the Mac Pro (Late 2013) which played out at 87fps in the same test.

Modern Mac action games presented no problems to the iMac Retina 5K. With the Batman: Arkham City game from Feral, we often have to creep up slowly to a MacBook's native resolution, with framerates dropping down into the unplayable level as we do.

Not so here, where the iMac could play at full-HD 1920x1080 resolution and High details settings, with a very capable average framerate of 89fps. We pushed the screen resolution up to its intrinsic HiDPI figure of 2560x1440, and the framerate barely sagged to 85fps.

Turning to Tomb Raider (2013) and its OpenGL port for the Mac, we found that with full-HD and High detail settings the game could play at close to the limit set by the 60Hz V-sync function (switchable but on by default in this game). The average framerate was 59.4fps.

So we again ratcheted up the resolution to 2560x1440, sticking to the High detail preset, and saw a result of 46.1fps. Unlike the Windows version of this game, which has Ultra and Ultimate settings above High, there's nowhere to go in increased detail with the Mac game.

Spurred on by these great results, it seemed the iMac was up to the challenging Unigine Heaven synthetic graphics benchmark. This often brings Apple Mac graphics processors to sub-20fps framerates at anything other than very low resolutions and details; but at a Retina-mode resolution (2560x1440) it averaged 29.4fps at Medium detail, and 29.3fps in High detail mode.

If you want to try with better detailing, you could try Ultra mode as we did, and engaged V-sync to remove any visual tearing. Tried thus, it played through at a smooth 50fps.



Display quality

Impressive to the naked eye, the display of the iMac Retina 5K also turned in some of the best numbers our humble Spyder4Elite colorimeter has ever measured.

As you might hope, but where so many consumer products fail to deliver, the display was found to have a full 100 percent coverage of the basic sRGB colour gamut. Even IPS display technology often falters here and struggles to achieve even 90 percent coverage. And from the Adobe RGB colour space, the iMac recorded 78 percent cover.

Full brightness from this panel was searingly bright at 445cd/m². We can't see that high output being healthy to long-term use unless you had to take the Mac outside on a bright sunny day. And at its full output it also gave the highest contrast ratio we've measured in the standard chequerboard test, returning a figure of 1160:1.

That may not sound so impressive when many monitor and television brands routinely bandy numbers like 10,000:1 or even millions to 1. But the difference is that our figure is closer to a genuine measure of contrast ratio, rather than a made-up figure that involves 'dynamic' trickery.

Down at a more comfortable brightness setting - a nominal 50 percent figure corresponding to 220cd/m² - contrast ratio was still a very impressive 1060:1.

Luminance uniformity across the huge 27in panel may seem a little poor, peaking at 20 percent, but in practice this is typical of most displays and barely discernible.

Colour accuracy with a test of 48 spot tones gave an overall average of just 1.66 Delta E, a terrific result.

Peering up close, we were unable to see any individual pixels. Stood a little further back, it really is photographic, like the richest, most detailed images you'd find in a photo book. And crucially, we didn't detect any obvious refresh issues with moving images.

Power

Power consumption for this cutting-edge display and the computer that drives it was surprisingly low. The peak figure with screen at maximum



brightness and CPU and GPU both under benchmark stress was 215W. This fell to just 46W at an idle OS X desktop with no apps running, and screen set to 200cd/m².

Noise levels became conspicuous at full tilt, particularly in graphics tests, with all hot air seeming to exhaust from a slatted hatch just under the screen hinge at the back. In normal use though, even with a 3.5in SATA disk comprising part of the flash/HDD hybrid storage solution, the iMac Retina 5K was suitably near-silent in operation.

Storage

Our sample was the entry-level model, with 1TB Serial ATA hard disk and 128GB solid-state drive attached by PCIe. These were a 1TB Seagate Barracuda HDD and 128GB SanDisk SSD, united by Apple's Core Storage technology in OS X to form a hybrid 1.1TB Fusion Drive.

We were unable to measure the speed of the flash component alone, so resorted to testing just the hard disk. Unlike the slow 2.5in notebook drive in the 21.5in iMacs, this 3.5in disk is surprisingly speedy. When empty it could reach sequential read/write speeds of 160MB/s. Smaller files averaged 24- and 36MB/s, for random reads and writes

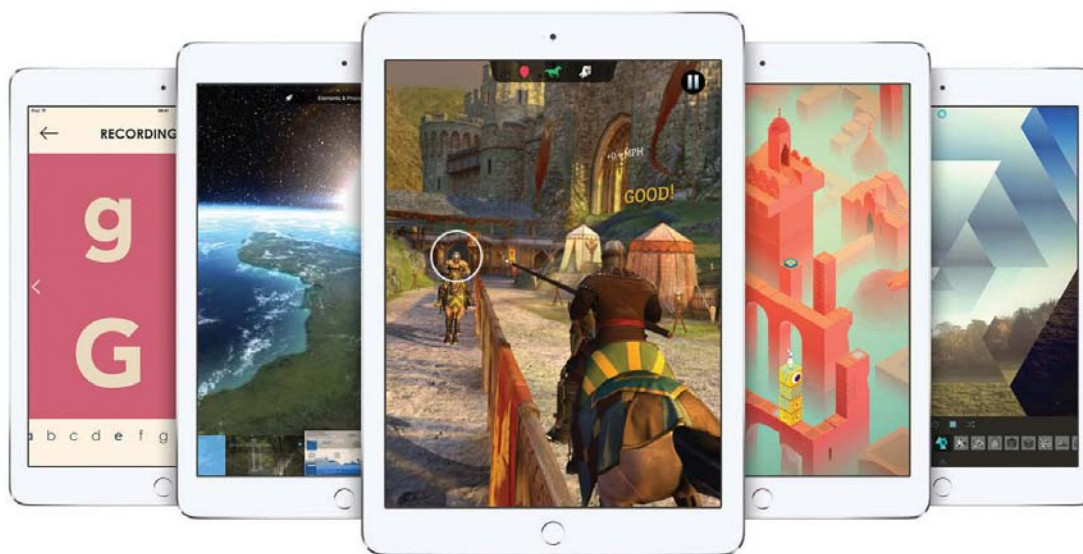
respectively and with files sized from 4- to 1024kB.

But, of course, these figures will not represent actual use as first writes are made to the flash section of the Fusion drive; and commonly used files and apps remain on this high-performance silicon drive for extremely fast reads when required.

Macworld's buying advice

There is no desktop computer like the iMac. While the rest of the PC industry is still issuing low-grade and low-resolution displays with its PCs and laptops, Apple has spotted a key area for improvement and continues to raise screen quality to new heights. Meanwhile, the few Windows PCs that have exceeded full-HD resolution displays are hamstrung by an operating system that cannot consistently cater for the tighter pixel pitch. More than just a great display, the iMac Retina 5K has a well-balanced computer driving it, with plenty of performance to power through games and any everyday task. Creative professionals on a budget, whether editing photos or videos, will also find plenty to like here, and at a sub-£2,000 price point considerably more affordable than a PC workstation and separate 5K UHD monitor. **Andrew Harrison**

Apple iPad Air 2



Apple's iPad Air 2 has launched and, unlike its more cautious little brother, the iPad Mini 3 (see page 74), it's replete with enhancements and new features. It's fast, thin and beautiful to look at. But is it too thin or too expensive?

Design and build quality

In a year of near-everyday use, the original iPad Air hasn't struck us as too fat or too heavy, but Apple has nevertheless sliced 6 percent off its weight and nearly 19 percent off its depth. It's now just 6.1mm thick (down from 7.5mm) and weighs 437g (for the Wi-Fi version) or 444g (with 3G) - that's down from 469g/478g.

The Air 2 is crazy-slim. And we mean that not entirely in a positive sense; shaving further millimetres off an already whisper-light chassis seems like an extravagance, and was presumably achieved at some cost - to battery size, and potentially to physical robustness.

In our tests, it has stood up to heavy use perfectly well, but it just feels more fragile than its predecessor. And a little flexing showed there is more give than on the original iPad Air.

Aside from being slimmer, the physical design is very similar to its predecessor. The back edges are rounded, and there's a brushed-metal effect across the back panel. The front edge has a sharp chamfer and a mirror finish, and looks smart.

The headphone socket and power-off button remain on the top of the device, the volume buttons are still on the upper right (though, they're fractionally further apart, and therefore a touch easier to tell apart with a blind finger) and the SIM tray is still in roughly the same spot at the lower-right.

The microphone holes have, however, moved - they're either side of the rear camera aperture now. Another change is that the speaker grille along the bottom is now a single row of larger holes rather than a double row of smaller ones. These are stereo speakers, as far as we can tell, but audio quality remains a weak point and the mute/orientation lock switch has gone.

Interface

The device comes with iOS 8.1 preinstalled. It's a highly optimised, user-friendly system that beginners find easy to grasp but offers a deep feature set for power users.

In use, we found it faster than on the original iPad Air 1. Flipping from screen to screen, for example, and within apps, is near-instantaneous. Part of this may be down to the highly responsive screen, however, which we will discuss next.

Display

In many respects, the Air 2 has the same screen as its predecessor (and, with some minor variations, in several previous iPads). It measures

9.7 inches (diagonally, corner to corner), and has a resolution of 2048x1536 and a pixel density of 264 pixels per inch. That's the standard iPad Retina pixel density, and very sharp to look at.

But there are a couple of differences from last season's display. One is in terms of the iPad's overall design. By compressing everything into a smaller form, Apple took out what it calls the 'air gaps' between different elements of the screen. However accurate a description that is, it has translated into a screen that is firmer to the touch, and has (unlike the device as a whole) less flex. (One of our few dislikes when reviewing the first iPad Air was the way the display yielded to a finger tap a tiny but appreciable amount. That's gone now.)

The second is the addition of an anti-reflective coating. Initially, we were sceptical, but this turns out to be pretty great, darkening and minimising the distracting reflections that appear when using an iPad under electronic lighting.

Finally, the screen appears to be more responsive to the touch. It's possible that the compressed design means that the touch-responsive elements are simply closer to the surface of the glass than before, creating the illusion that your fingers are actually touching and moving the visual elements displayed. Or this could be the effect of the new, more powerful processor

From £399

Contact

■ Apple, apple.com/uk
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■ tinyurl.com/Ly2k5av

System information

9.7in (2048x1536) LED-backlit widescreen; multi-touch display with IPS technology; fingerprint-resistant oleophobic coating; fully laminated display; anti-reflective coating; A8X chip with 64-bit architecture; M8 motion coprocessor; 8Mp iSight camera; 1080p HD video recording; 1.2Mp FaceTime camera; Wi-Fi (802.11a/b/g/n/ac); dual channel (2.4GHz and 5GHz); HT80 with MIMO; Bluetooth 4.0; AirPlay Mirroring; 240x169.5x6.1mm; 437g

Macworld



EDITORS' CHOICE

and its superb graphical muscle. Either way, it's a pleasure to use.

Processor

The iPad Air 2 comes with a new chip – the A8X. It's a souped-up version of the A8 that's used by the iPhone 6 and 6 Plus.

Apple told us that last year's A7 processor was a departure from the norm – normally it makes a specific 'x' chip for iPad. Because of the scale with 64-bit, it was able to use the A7 chips in the iPads last year, but this year it's giving the Air 2 a new processor. The A8X offers a 64-bit desktop-class architecture and three billion transistors. It is the only iPad to gain this new processor.

Thanks to this chip, the iPad Air 2 is 40 percent faster than the previous generation, according to Apple. Even more impressive is the graphical side of things: Apple claims that users will see two-and-a-half times the graphics performance. That's great news for gamers, and video- and photo-editing apps will also benefit from the enhanced graphics performance.

Camera

The third in the Air's triptych of enhancements (after the slimmed-down body and pumped-up chip) is the rear-facing camera, which has been boosted from 5- to 8Mp.

Your experience is likely to vary depending on the shooting conditions, and there will be areas where the iPad Air 2 demonstrates its superiority – particularly close-up detail under studio lighting, and low-light conditions – but don't expect a quantum leap forward.

More appealing than the increase of megapixel rating, however, may be the new camera features that have been added. The iPad Air 2 gets slow-mo and time-lapse video modes, as well as burst mode and a timer. And panoramas: the original Air had these, but they now go all the way up to 43Mp.

Apple has also improved the FaceTime camera – it's now HD and lets in 81 percent more light. Perfect for low-light use.

Touch ID and Apple Pay

Less important than the big three improvements, but likely to please a select few Touch ID addicts, is the addition of Apple's fingerprint scanner to the iPad line for the first time. (It simultaneously makes an appearance in the iPad mini 3.)

Touch ID on the iPad is as straightforward and fast to use as it is on the iPhone. You can use it to unlock the device, to unlock various apps, and to verify purchases on the App Store. There are, of course, checks and balances – the first time you unlock the iPad after a power-down, you'll need to input the passcode; ditto the first time you verify a purchase after setting up Touch ID. You can also use Touch ID for online shopping, as long as those sites and/or apps have Apple Pay implemented.

Apple appears to have concluded that people are unlikely to take their iPad shopping in the real world, so the most famous aspect of Apple Pay and Touch ID – the one where you touch your device on a sensor in a shop to pay for goods, as seen in the iPhone 6 and Apple Watch – has been disabled on the iPad Air 2.

We had thought that Apple had simply chosen not to equip the new iPads with the NFC antenna required for in-store Apple Pay, but a teardown by iFixit has found otherwise. Which means that, in theory, Apple could activate the feature in future. It's perhaps more plausible,

however, that the NFC module has been included as a future-proofing feature that can be used for smart home controls, device-to-device money transfers and other as-yet unrevealed functions some way down the line.

Graphics

Another benefit of the A8X is that it uses quad-core graphics – the A8 in the iPhone 6 or Plus doesn't.

Apple says the graphics are two-and-a-half times faster than those on the original Air. The company also told us that games developers are working to optimise titles.

Sound quality

As we mentioned earlier, the Air 2 gets a stereo speaker setup, like the iPad mini line-up before it. (At least, we're pretty sure it does – there's still some debate about this, and Apple's own specs only call them speakers.) About time, some audiophiles might say: yet the truth is that it might as well still be mono.

The speaker grilles are right next to each other, on the same edge of the device. (The lower edge, either side of the Lightning port.) It's therefore almost impossible to create a situation in which the two sound sources can be heard separately. If you pop the iPad on its side and watch a movie with amazing sound design, prepare for disappointment: both speakers will be on the left (or the right) of the screen, and their output will be mashed together.

To provide good stereo sound, the iPad needs to have speakers on opposite sides. Of course, this would involve compromises in design, and





overall battery life of 10 hours of web surfing, video playback or music listening. We tried a more stressful test than

browsing, using looped gameplay from GFXBench to play the T-Rex sequence, 30 times over. This gave an estimated total runtime of three hours, 53 minutes. For reference, we tried the same test on a year-old first-generation iPad Air. Both tablets were running the same build of the current latest iOS 8.1 software. Here the original Air posted an estimated total runtime of four hours, six minutes.

But it's vital to also look at

the performance of both products. Over the length of the test, the first Air could play at an average framerate of 22.9fps. Meanwhile, the Air 2 played at more than twice that speed, recording 48.3fps. This one test comes close to validating Apple's claims for two-and-a-half times the graphics performance.

Connectivity

The new iPad Air 2 also offers better Wi-Fi connectivity than the last generation, thanks to the inclusion of the latest 802.11ac technology. The iPad mini 3 doesn't gain this new Wi-Fi technology which seems like a strange omission as Apple told us that the new Wi-Fi technology will be great for AirDrop. Another new area of connectivity

is the addition of Apple's own SIM – a removable SIM for the UK and US markets. This SIM is designed to be as “flexible as possible,” according to Apple. It will only work in the latest iPads though.

There will be no NFC in the iPads, though. Apple doesn't believe that it is a device that people will naturally use to pay for goods in stores. As previously mentioned, Touch ID will work for online shopping, though.

Storage capacity

As it did with the iPhone 6 line-up, Apple has dropped the 32GB capacity option from the iPad Air 2 line up. The tech giant told us that this was a strategy to bring the higher capacities down to a lower price point making it more affordable in that category.

When we asked why it had kept the 16GB model on (rather than replacing that with the 32GB model), Apple told us that 16GB has always been popular (due to the lower price we are sure). Unfortunately, it seems likely those people with 16GB devices are also the ones who've failed to install iOS 8.1. Read how iOS update reveals Apple's 16GB folly on page 90.

You will be able to buy a 32GB iPad Air 2, however.

Macworld's buying advice

We're a tiny bit concerned about how much physical punishment this slender creature will stand up to, but if you're throwing your iPad around the place (or deliberately bending it), then you should probably expect to come unstuck anyway. Other than that, this is a lovely update of an already lovely device, with an improved camera, a considerably faster processor, a slimmer, more portable body and Touch ID. We

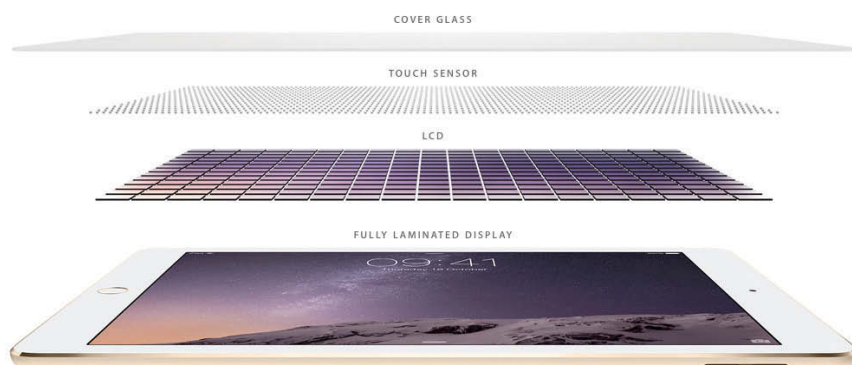
might not recommend that owners of the first iPad Air upgrade – by the time the speed gains of the A8X are showing up in apps, we'll be thinking about the iPad Air 3 – but if you're on an iPad 4 or earlier, or new to the world of iPads, or just have a lot of cash to spare, jump in. **David Price**

it's possible that Apple doesn't think of the iPad as a serious audio device; and those who want stronger audio can invest in a wireless speaker or some decent headphones.

Moving away from the mono/stereo issue, the Air 2 produces sound that isn't bad, though, it isn't great either. It can manage quite a decent volume without quality degrading, but while you get a nice solid snap out of snare drums and similar, bass isn't much to write home about. It's a 'thin' sound, too – not something you'd call warm.

Battery life

There's a smaller capacity battery inside the Air 2 – 27.3Wh compared to 32.4Wh in the original Air – although Apple specifies the same



From £319

Contact

■ Apple, apple.com/uk

Read more

■ tinyurl.com/Lbn6jhp

System information

7.9in (2048x1536, 326ppi)
LED-backlit Multi-Touch display with IPS technology; fingerprint-resistant oleophobic coating; A7 chip with 64-bit architecture; M7 motion coprocessor; 5Mp iSight camera; 1080p video recording; 1.2Mp camera; Touch ID; Wi-Fi (802.11a/b/g/n); dual channel (2.4GHz and 5GHz) and MIMO; Bluetooth 4.0; FaceTime; AirPlay Mirroring; iOS 8.1; 200x134.7x7.5mm; 331g

Macworld
★★★★★

Apple iPad mini 3



As well as launching a new iPad Air (see page 71), Apple has also released an update to its line-up of smaller tablets, the mini 3.

The first thing you'll notice is that it's deceptively similar to the mini 2. In fact, as we look at later, the only real difference between the two is the introduction of the Touch ID fingerprint sensor and the option to buy a tablet with gold casing in addition to silver and slate grey.

Design and build

The iPad mini 3 is gorgeous. It has a brushed aluminium chassis, available in the aforementioned new gold, as well as silver and slate grey hues.

The addition of a gold model didn't come as a huge surprise, as it brings the iPad range in line with the iPhone. The gold option was first introduced with the 5s, and is an option for the iPhone 6 and 6 Plus, too. Apple told us that gold has proven to be a very popular colour choice for the iPhone.

The bevelled edges surrounding the glass front of the iPad mini 3 add to the overall premium finish, and look great paired with the Home button's new Touch ID fingerprint sensor, which has a matching metal ring around it.

Aside from the gold option and the Touch ID, Apple's tablet looks the same as its predecessor. It didn't get the same treatment as the Air 2, which is slimmer and lighter than the model that came before it.

Taking a closer look, the mini 3 is 7.5mm thin (for comparison, the Air 2 is just 6.1mm), and weighs 331g for the Wi-Fi only model or 341g for the Wi-Fi + cellular model.

During our testing, we didn't feel that this tablet should be thinner, though, we found it a bit heavy when holding it in one hand for more than 10 minutes, particularly with Apple's Smart Cover attached. The original mini was lighter than the mini 2 and 3, so we'd like to see Apple shave off a few grams with the next version.

Oddly, the bigger iPad Air 2 (which has a 9.7in display rather than a 7.9in display) felt more comfortable to hold to us, despite being around 100g heavier. This is probably to do with the difference in the way the device is held.

Touch ID

As we mentioned at the start of this review, Apple has added Touch ID to the iPad mini 3. During our tests we found it easy to set up, simple to use and it worked flawlessly.

It can be a huge time saver, as you don't need to enter your passcode every time you want to unlock your device. It can also be used to unlock various apps and to make purchases in the iTunes Store, App Store and iBooks Store.

You'll also be able to use it to do your online shopping, as long as those online stores have Apple Pay implemented.

Note that Apple Pay won't work in actual brick and mortar stores - Apple believes that people are unlikely to take their iPad shopping in the real world. The mini 3 lacks the Apple Pay technology added to the latest iPhones.

Display

Apple hasn't made any changes to the 7.9in Retina display. It retains the same resolution: 2048x1536 at 326 pixels per inch (ppi). That's a better than the Air 2, which has the same resolution but offers 264ppi due to the bigger screen.

Hardware and performance

The mini 3 uses the same processor as its predecessor - the A7. It seems Apple has focused its attention on the Air 2 this time round, which has a very powerful A8X chip.

Last year, we were surprised that the only difference between the mini 2 and the original Air was their size. Now there will be more reason to buy a larger iPad, which is good news for Apple as it can make more money from that model, though, disappointing for lovers of the smaller form factor.

Not that the A7 chip is a slouch. It's a very fast, 64-bit processor. The mini 3 also features the M7 motion co-processor, which helps save power by taking on the task of



measuring motion using the built-in accelerometer, gyroscope and compass. Both the A7 and M7 are found in the iPhone 5s.

We carried out a series of benchmark tests on the mini 3 to find out the difference between it and the mini 2 when it comes to speed and performance. We also looked at how it compares to the brilliant iPad Air 2.

In our Geekbench 3.0 performance test, we found that the mini 3 (running iOS 8.1) scored 1376 in the single-core test and 2483 in the multi-core test, which is almost identical to the mini 2's scores of 1374 and 2484. It is, however, a lot better than the original mini running iOS 8.1, which scored a significantly lower 260 (single) and 494 (multi).

The iPad Air 2, on the other hand, is incredibly powerful judging by our benchmark tests, scoring 1818 in the single-core test and a whopping 4520 in the multi-core trial.

As for graphics, the mini 3 is good, though, isn't in the same league as the Air 2. It scored 8.9fps in the Manhattan onscreen test in GFXBench, which is identical to that of its predecessor but way behind the 24.6fps of the Air 2. The T-Rex test results were more impressive, at 22.7fps for the mini 2 and 3 and an incredible 52fps for the Air 2.

When it comes to SunSpider, the JavaScript browser test, the mini 3 scored a speedy 449ms, just like its predecessor. The Air 2 scored a staggering 287ms and the original mini was painfully slow at 1,503ms.

Connectivity

As we've already talked about, the mini 3 is virtually identical to the mini 2. This means that unlike the Air 2, it doesn't come with 802.11ac, which we think is a real shame. Instead, it has dual-band 802.11n Wi-Fi and MIMO, with download speeds that can reach up to 300Mb/s. If you opt for the Wi-Fi + cellular model of the iPad mini 3, you'll also get 4G LTE capabilities.

Aside from that, though, the tablet comes with Bluetooth 4.0 and GPS, and uses Apple's Lightning connector to charge.

The mini 3 does, however, get the new Apple SIM, a removable SIM for the UK and US markets. This SIM is

designed to be as "flexible as possible" according to Apple. At present, it's only EE that's signed up to Apple SIM in the UK, so unless you often travel to the US, it's not going to be much use just yet. (For more on this, go to page 91.)

Capacity

As it did with its iPhone 6 line-up, the 32GB capacity option has been dropped. Apple told us that this was a strategy to bring the higher capacities down to a lower price point. When asked why it had kept the 16GB model on, rather than replacing that with the 32GB model, Apple revealed that 16GB has always been popular (due to the lower price we are sure). Unfortunately, we think it's likely that all those people with 16GB devices are the ones who've failed to install iOS 8 because they don't have enough space left on their device. (Read why we think this is a mistake on page 90.)

If you want a 32GB device you'll need to buy a mini 2, as the mini 3 is available only in capacities of 16-, 32- and 128GB.

Cameras

Like so much else on this device, the cameras haven't been upgraded, so it has the same rear-facing 5Mp iSight camera with f/2.4 aperture. HDR is supported and with iOS 8 you get the option to take high-resolution Panorama shots (up to 43Mp) and the ability to capture time-lapse videos. Video capabilities of the rear-facing camera are 1080p HD at 30fps. The front-facing FaceTime snapper is 1.2Mp, and is capable of capturing 720p video. Although its cameras haven't been updated, it still takes decent shots.

Price

The entry-level 16GB model is available for £319, rising to £419 if you add cellular connectivity. That's just £80 less than the iPad Air 2, though, despite the significantly less impressive specs.

As mentioned above, there isn't a 32GB iPad mini 3, instead you jump straight to 64GB for £399 (£499 for cellular). The top-of-the-



range 128GB iPad mini 3 costs £479 (£579 for the cellular version).

With so little difference between the price of the iPad mini 3 and the Air 2, and with the former having so few changes aside from Touch ID, we would strongly advise you to consider whether the Air 2 is a better option for you.

The alternative is, of course, to opt for the iPad mini 2, which is still available to buy from Apple in 16GB and 32GB models for £239 and £279 respectively. We think the 32GB mini 2 is a much better deal. Plus, it's well worth checking the Apple Refurbished store (tinyurl.com/6kp9bqv) to find out whether you can save even more money by buying a refurbished iPad mini (which are as good as new anyway).

Macworld's buying advice

The iPad mini 3 is by no means a bad tablet. In fact, it's a great one, but it's a bit of a rotten deal. We'd find it difficult to recommend buying one when the mini 2 is available for £80 less and is almost exactly the same, and the hugely more powerful and impressive Air 2 is just £80 more.

The only reason to buy a mini 3 over the other options is if you're set on a 7.9in screen, are desperate for a gold model and you think you can't live without the Touch ID. If that's you, then you won't be disappointed by this tablet, but a new processor and some other spec upgrades would have certainly have been appreciated. **Ashleigh Allsopp**



iPad buying guide

David Price helps you find the best iPad for your needs in our complete guide to buying an iPad

Apple currently sells five models of iPad, but deciding which one is right for you can be tricky. In this guide, we'll help you work out your requirements.

Should you get the original iPad Air or the new Air 2? Or maybe you want something smaller, in which case you have three options: the first-generation iPad mini, the mini 2 and the iPad mini 3. We also discuss options such as storage capacity, 3G/cellular capabilities, the display and colours, and look at whether a refurbished iPad is your best choice. Your decision will, of course, be affected by how much you have to spend, how portable and powerful you need your iPad to be, and in what areas (if any) you are willing to compromise.

So let's get started. First, we'll decide whether you need a full-size iPad or a mini, and then help narrow down your choice from there.

iPad Air or iPad mini?

First, do you want a full-size iPad (the Air or Air 2) or a smaller iPad mini?

Screen size

The most obvious aspect of this decision comes down to screen size. The full-size iPads have 9.7in displays, whereas the smaller minis feature 7.9in screens.

You can get an idea of the relative sizes in the image above. The Air's larger screen is obviously better for immersive entertainment. Whether watching films or playing games, it's a more enjoyable, richer experience. The minis have only about two-thirds of the screen real estate.

However, the mini's display feels much closer to the full-size iPads than you might think, and many of us are already used to watching films and TV shows on the smaller screen of our iPhone. Don't discount the mini as an entertainment device – it'll do you proud. It's a question of priorities. Are you set on getting maximum screen space, or are you willing to compromise in order to get a lower price tag and improved portability?

Portability

One of the payoffs for opting for a smaller iPad is increased portability. For one thing, the minis are a lot lighter, even taking into account the alarming diet that the Air 2 has been put on.

The original iPad Air (the heavier of the two full-size tablets) is about half as heavy again as the original mini, the lightest of Apple's diminutive tablets: 469g to 308g, looking at Wi-Fi-only models. The gap between full-size and mini tablets narrows if you bring in later models, but is always at least 100g.

The minis will slip easily into a rucksack or even a jacket pocket. If you plan to mainly use your iPad out and about, on holiday or while commuting, then the smaller models are your best bet. The Air 2 continues its quest to close the gap between full-size and smaller models, and is pleasingly portable, but it still can't match the mini for pocketability.

Price

Perhaps the biggest mark in favour of buying an iPad mini is the price. Starting at just £199, the first-generation model is the cheapest iPad by £40, and is the cheapest tablet Apple has ever sold. Even the brand-new iPad mini 3 (at its most basic spec, at least) is the same price as the year-old iPad Air.

Which iPad Air should you buy?

So you've decided on either a full-sized iPad. Here we look at the two Airs to help you narrow things down further.

Display

The screens of the iPad Air and Air 2 are the same in most regards. They are both Retina displays and have a resolution of 2048x1536 and pixel density of 264 pixels per inch (ppi). In sharpness they are identical. Apple has, however, made one enhancement to the Air 2's screen: an

anti-reflective coating. This should reduce annoying/distracting reflections when using the iPad under bright lighting.

Processor

With its A8X chip, the Air 2 is significantly faster at general processing and handling graphical tasks than the original Air (which has an A7 chip) – about 40 percent faster, on paper. But at this point, the difference is more theoretical than practical. The first-generation Air can handle all current apps, and you're unlikely to see major speed gains with current software. As time goes by, however, more demanding apps such as graphically ambitious 3D games and video- and photo-editing programs may begin to tax the original Air, and it's here that the Air 2 will demonstrate its greater processing muscle. Think of it as future-proofing.

If you need your iPad to be able to run the most demanding apps for years to come, then the Air 2 is a better choice. But we suspect that it will be some time before the difference in speed is noticeable at all, and if your iPad time is limited to light use – browsing the web, reading emails, playing graphically simple games – then it's probably overkill.

Camera

The iPad Air 2 has an upgraded rear-facing camera: the megapixel rating has been increased from 5- to 8Mp. This is now a serious bit of photographic equipment and will take splendid photos. Of course, we always feel like undercutting any praise of an iPad's camera by speculating on exactly how many people use it (isn't it rather inconvenient, size-wise?). But if you do, then the Air 2 is a great option.

It's also worth noting that it gets some new features: time lapse, burst mode, panoramas up to 43Mp and a timer.

Weight and dimensions

We've been using an iPad Air almost every day for the past year, in the office, on the sofa, on the train and in bed, and have never felt it was too thick or too heavy. We were therefore surprised when

Apple announced that the Air 2 was even thinner. But thinner it is, and it's a stunning feat of engineering.

The original Air is 7.5mm thick, and weighs just 469g (for the Wi-Fi-only model). It's a beautifully one-handed tablet. If you're reading an ebook in bed, for example, you can easily hold it in one hand. The Air 2, however, takes things even further. It's nearly 19 percent thinner, at 6.1mm, and weighs 6 percent less: 437g. This is a tremendously portable device.

Touch ID fingerprint scanner

The Air 2 comes with Touch ID fingerprint scanning technology, built into the Home button. Since the launch of iOS 8 this works with a number of third-party apps, as well as with Apple's own offerings, and this is only going to get better as more developers build Touch ID compatibility into their apps. Touch ID is a convenient way to unlock your iPad or an individual app, with a single touch of a finger rather than a passcode or password. It also means you'll be able to use one part of Apple Pay (the online/app-based part, but not the 'paying in a shop' part) when it launches in the UK. But Touch ID isn't a dealbreaker for most people.

iOS 8.1

Finally, both iPad Air and Air 2 come with iOS 8.1 preinstalled. The only slight point of interest here is that the original

Air is one generation older than the Air 2, and consequently one rung further down the iOS ladder. You should therefore expect a shorter period of full iOS update support if you buy an iPad Air than if you buy the Air 2.

Macworld's buying advice

The step up from iPad Air to Air 2 is an accumulation of small enhancements. None of the improvements by themselves would be enough to earn a strong recommendation, but they become persuasive when viewed together: you get a faster processor chip, a better rear-facing camera, a Touch ID fingerprint scanner, a lighter and thinner device and a less reflective screen. Is all of that worth an extra £80? Probably. But this depends on the circumstances.

If you've got the original iPad Air and are wondering whether to upgrade, we're not sure we'd recommend it. It's already wonderfully thin and light, and fast enough for all current apps. If you love having the very latest Apple kit and have the money to spare, then go for it; but upgrading every other year is more than enough for most people to have a great experience with their iPads.



If you're updating from an iPad 4 with retina display or earlier, or buying your very first iPad, things are a little different, and we'd probably suggest you go for the newer model. If you like to run demanding games and apps or are a keen iPad photographer, you'll get noticeable benefits (although the speed improvements may take some time to become apparent – we'll need to wait for app developers to catch up). And Touch ID is a convenient bonus.

Those who have light use in mind such as email or browsing the web should be fine with an iPad Air, and would do well to save the extra cash. Although such customers might want to consider a cheaper option: the iPad mini or mini 2.

Which iPad mini should you buy?

Okay, you've settled on an iPad mini, but which model is best for you?

Differences

First of all, let's list the differences between the three models. Most significantly, only the mini 2 and 3 get Retina displays – the original mini has half the pixel density of the later two models, and is noticeably (but not drastically) less sharp to look at when displaying high-detail photos and text.

The first mini also uses a slower (and considerably older) processor chip than the mini 2 and 3. It has an A5 chip, whereas the mini 2 and 3 come with an A7 processor. This is around four times as fast for general processing, and eight times as fast for graphical processing. But these numbers are theoretical, and only apply in situations that exert a significant demand on the

processor; on many simple apps the original mini will be fine.

The mini 2 and 3 are bulkier than the original mini, although only very slightly; they are each 7.5mm thick, compared to 7.2mm, and their weight (Wi-Fi-only) is 331g to the first mini's 308g.

All of which makes it sound as though the big differences are between the first mini and mini 2, and that the mini 2 and 3 are the same. Which isn't far from the truth. The only differences between the mini 2 and 3 are the addition of a Touch ID fingerprint scanner, storage options and a new gold colour option.

Display

The key question for most buyers is the screen. Do you need a Retina display?

Such a screen is one where the pixels are packed so densely that your eye can't make out individual pixels. It's noticeable, particularly on small text and highly detailed photos, but not earth-shattering: with the first mini's non-Retina display you'll notice some pixellation when reading and on some highly detailed images, but it's not an issue. The Retina display on the mini 2 and 3 is super-sharp and vivid, but the first mini's screen isn't bad at all. If you've never used a Retina display, you'll find the first-gen mini's screen fine; once you've tried Retina, though, you may find it harder to go back.

Processor

The next important difference between the original mini and the mini 2 and 3 comes down to the processor. The former has an A5 chip, while the two newer models have an A7 chip, complete with its M7 graphics

coprocessor. (Wondering what happened to the very latest generation of chips, the A8 from the iPhone 6 and 6 Plus and the souped-up A8X from the iPad Air 2? Those chips have been withheld from the mini line-up.)

Apple says the iPad mini 2 and 3 are up to four times as fast at general processing as the iPad mini, and up to eight times quicker at graphical tasks. That sounds astounding, but the reality is that you should be hearing the words 'up to' loud and clear. On a lot of the simple tasks and basic apps that make up three-quarters of the average iPad user's experience, an A5 iPad will be fine, and you may not even notice a difference between that and the iPad mini 2 or 3.

Where the A7 chip comes into its own is when you up the ante and start playing newer or more graphically demanding games, or use video- and photo-editing packages. The A5 is long in the tooth, and the more demanding of current apps will benefit from the A7's muscle.

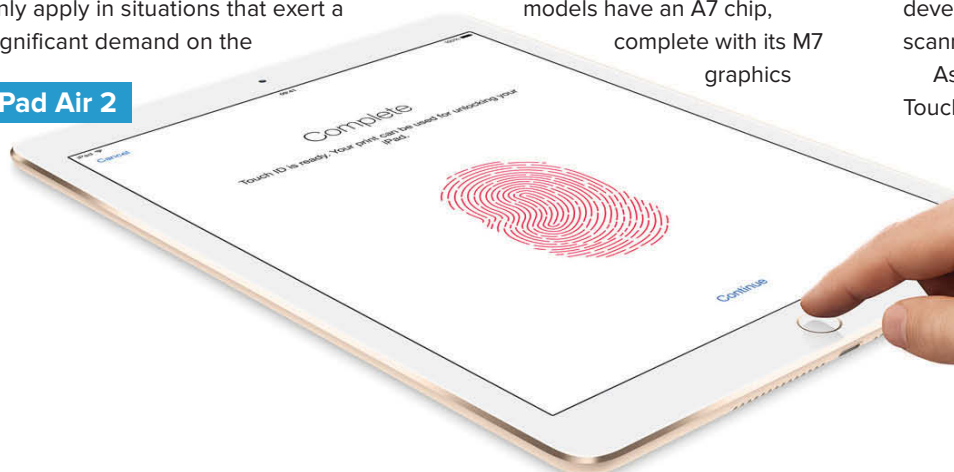
More significantly, the apps that get released in the future will be designed to take advantage of the most recent mobile processors. The mini 2 and 3 are therefore a more future-proofed option. They are also more likely to be able to use features in future updates to iOS.

Touch ID fingerprint scanner

The biggest difference between the mini 2 and 3 is the addition of a fingerprint scanner. With the opening up of Touch ID in iOS 8, this now works with third-party apps as well as with Apple's own offerings, and is therefore only going to get more useful as more and more developers incorporate fingerprint scanning into their apps.

As we stated in the iPad Air section, Touch ID lets you unlock your tablet, or an individual app, with a single

iPad Air 2



touch of a finger rather than with a passcode or password.

Video

Although the cameras on the original mini, 2 and 3 are supposed to be the same, in our testing the mini 2 and 3 shot noticeably better video. So if that's something you plan to do a lot, chalk up another win to the later two models.

Macworld's buying advice

The first and most obvious thing to say is this: £80 extra for the iPad mini 3 (compared to the equivalent mini 2) is a tough sell. All you get for that is Touch ID, and while it's convenient, it's hardly worth £80. If you've got a mini 2, our advice is this: do not upgrade to the iPad mini 3 unless you adore the colour gold or desperately need a lot of storage.

The £40 price gap between the first mini and mini 2, in contrast, seems smaller than we'd expect, and we would recommend upgrading to the mini 2, or going for the newer of those two devices if you're buying your first mini tablet. For its extra £40, the mini 2 gets a much faster processor than the original mini and a Retina display. These are major selling points – the A7 is more important than ever, given how much apps have moved on in the past year. The A5 is only going to get more and more tired when tackling games and demanding apps.

Still, there are situations where we'd recommend the dear old iPad mini 1. It's super-cheap, for one thing, even if a mere £40 more would get you a significantly better device. And if you're what we'd call 'light user' (someone who only wants a tablet for a spot of email and web browsing on the sofa), then it'll do you proud. Save the £40. Just bear in mind that you probably won't be able to upgrade to iOS 9, and that you won't be able to run all the apps out there – not well, at least.

Choosing the best iPad

Here are the pros and cons of each iPad model, and the people for whom it would be the ideal choice:

iPad Air

Pros: The first Air is a lovely, slim and light full-size tablet with a glorious screen. The camera is fine (if that's your thing) and it's powerful enough to handle basically anything on the App Store.

Cons: It can handle anything on the App Store, but give it a few months of developers working with the A8X and you'll start to find that some of the coolest games are a struggle.

Ideal for: Anyone who needs a big screen but can cope without the latest in processing muscle.

iPad Air 2

Pros: Thinner and lighter than the Air 1. Even more powerful – the most powerful iOS device available to humanity. Gets a stronger camera that makes it a legitimate photographic option.

iPad Air 2 and iPad mini 3



Cons: Expensive. Overkill for most situations and all current apps. Will need time to prove its worth.

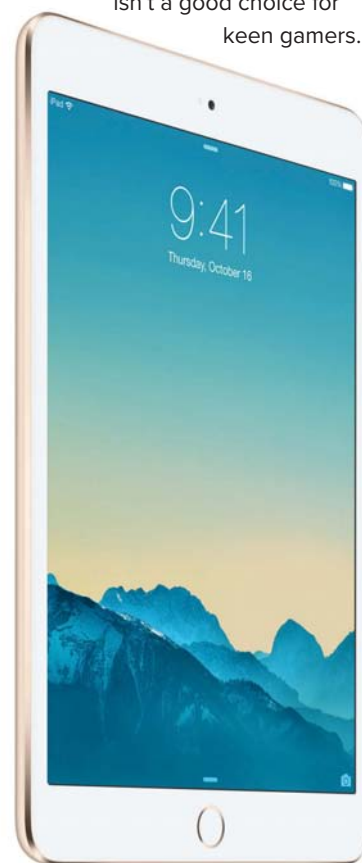
Ideal for: Gamers, iPad photographers, and anyone who wants to be able to run the most demanding apps in a year's time. Power users.

iPad mini

Pros: Cheap and portable. Still a perfectly decent device for most standard computing activities.

Cons: Smaller screen makes it less of an immersive option for watching films and TV shows, and for gaming, than the full-size iPads. Starting to show its age in processing power – mid- to high-level games are likely to show the speed gap between this device and the mini 2 and 3. Screen is non-Retina, so ebooks and photos will be noticeably less sharp.

Ideal for: Budget- and portability-conscious. Those who tend not to run demanding apps and games – this isn't a good choice for keen gamers.



iPad mini 2

Pros: Cheap, portable and Powerful, even if not quite as powerful as the iPad Air 2. Retina screen. Great all-rounder.

Cons: Doesn't get Touch ID fingerprint scanner. Year-old A7 chip doesn't offer same longevity as the iPad Air 2's A8X, although this remains the most powerful chip available for iPad minis.

Ideal for: Everyone. Well, those who are willing to compromise on screen size and Touch ID to get a great deal and a highly portable device.

iPad mini 3

Pros: Very portable. Powerful, even if not quite as powerful as the iPad Air 2. Touch ID fingerprint scanner. New gold option.

Cons: It's not a terrible deal, but it looks like one compared to the mini 2 – an extra £80 just gets you Touch ID and the choice of a gold finish. Processor chip is a year-old on a brand-new device.

Ideal for: The portability-conscious with a high budget. Touch ID enthusiasts and those who can afford it. The mini 3 isn't a bad choice – the price is okay and this is the finest mini Apple has released.

Macworld's buying advice

In a nutshell, our advice is to get the original iPad mini if you're looking for a bargain and are willing to compromise on screen size, screen quality and processing power, and the iPad mini 2 if you have a little more money.

The iPad Air 2 is probably the best choice if you need a bigger screen – its numerous enhancements over the first Air make it worth the extra £80).

The most difficult iPad to recommend is the mini 3, which isn't worth the extra £80 over the previous model.

What storage capacity should my iPad have?

If you've gone for a brand-new first-generation iPad mini you haven't got many options where it comes to storage: you're capped at 16GB.



iPad mini

The remaining four iPads, meanwhile, offer anywhere from 16- to 128GB. How much storage capacity will you need?

Well, first of all remember that you can't upgrade the storage capacity of an iPad at a later date: this is your limit from now until you buy another tablet, so aim high and buy as much storage as you can afford. Apple is probably a little cheeky in how much more it charges at each storage point (it's relatively cheap for a manufacturer to upgrade), but it's better to spend an extra £80 now than to buy a new iPad in six months' time.

Storage capacity is in our experience mainly used up by three things: music, photos and videos, in increasing order of storage drain. If you want to keep lots of films – or even a few – then you need high storage: probably the 64GB unit or higher for video fans. The same applies to large photo or music libraries, to a lesser extent, although Photo Streams and iCloud Match respectively make it practical to keep your stuff in the cloud and access it remotely. Opt for at least 32GB if you want to keep any sort of media library on your iPad.

The other thing that will fill up your storage is apps, but the amount of space

they take up varies enormously. Heavy-duty games will also use up a lot of space, and gamers should aim high on storage – 64GB is a good bar to aim at with 32GB the compromise point.

We use a comic viewer app with lots of comics in it, and unsurprisingly they do their bit in helping to fill a (128GB) iPad to over half-capacity. If you think it's not possible to fill the largest iPads – it can certainly be done, but if we were on a lower-capacity model we'd be more likely to delete apps. We've deleted a load of old apps and photos, and are still closer to the 64GB mark than to the 128GB mark. But there's only one film on there – that's the killer.

16GB isn't much these days, but you can manage if you're willing to delete apps after you stop using them, don't use hardcore games, regularly transfer photos to the cloud or your Mac and don't use the iPad as a media/music library.

Colour options

We're not sure we can help too much on this one. But the basic gist is this: if you're getting the iPad mini 2 or 3, or the first iPad Air, you can buy it in black (or Space Grey, in Apple's terminology) or white (silver). If you're getting the iPad mini 3 or

the iPad Air 2, you get an extra option on top of those: gold. We really like the iPad gold, as we mentioned earlier – it's almost a rose gold, quite bronze-like in its warmth. But black or white are the more conservative options.

The 3G/4G/Cellular option

Finally, do you need 3G/4G/cellular connectivity? It's a luxury, we'd say, even if it's a nice one to have. For an extra

£100, you'll be able to access the web and email, and use connected apps, away from a Wi-Fi network. (You also need to factor in the cost of a data plan.) Consider carefully how often you're going to do that – with an iPad mini there's likely to be more on-the-go use than with a full-size iPad, but it's still a lot to pay for something you may only use from time to time. Have you got a regular (overground) commute where you'd enjoy catching up

on news headlines or email? Then it could be worth the extra.

Just bear in mind that the cellular option also brings with it a GPS radio – meaning that you'll be able to pull in accurate location data when using your device on the go.

So that's it – hopefully we've walked you through the iPad buying decision without too many tears. We wish you many happy hours of iPad use.

2014 iPad line-up					
	iPad Air 2	iPad Air	iPad mini 3	iPad mini 2	iPad mini
Price	Wi-Fi: 16GB, £399; 64GB, £479; 128GB, £559. Wi-Fi + cellular: 16GB, £499; 64GB, £579; 128GB, £659	Wi-Fi: 16GB, £319; 32GB, £359. Wi-Fi + cellular: 16GB, £419; 32GB, £459	Wi-Fi: 16GB, £319; 64GB, £399; 128GB, £479. Wi-Fi + cellular: 16GB, £499; 64GB, £499; 128GB, £579	Wi-Fi: 16GB, £239; 32GB, £279. Wi-Fi + cellular: 16GB, £339; 32GB, £379	Wi-Fi: 16GB, £199. Wi-Fi + cellular: 16GB, £299
Display	9.7in Retina display; 2048x1536 resolution at 264ppi	9.7in Retina display; 2048x1536 resolution at 264ppi	7.9in Retina display; 2048x1536 resolution at 326ppi	7.9in Retina display; 2048x1536 resolution at 326ppi	7.9in LED backlit display; 1024x768 resolution at 163ppi
Processor	A8X chip (64-bit); M8 motion coprocessor	A7 chip (64-bit); M7 motion coprocessor	A7 chip (64-bit); M7 motion coprocessor	A7 chip (64-bit); M7 motion coprocessor	A5 chip
Touch ID	Yes	No	Yes	No	No
Connectivity	Wi-Fi: 802.11a/b/g/n/ac; MIMO; Bluetooth 4.0. Wi-Fi + cellular: 802.11a/b/g/n/ac; MIMO; Bluetooth 4.0; GSM/EDGE; CDMA EV-DO Rev. A and Rev. B; UMTS/HSPA/HSPA+/DC-HSDPA; 4G	Wi-Fi: 802.11a/b/g/n; MIMO; Bluetooth 4.0. Wi-Fi + cellular: 802.11a/b/g/n; MIMO; Bluetooth 4.0; GSM/EDGE; CDMA EV-DO Rev. A and Rev. B; UMTS/HSPA/HSPA+/DC-HSDPA; 4G	Wi-Fi: 802.11a/b/g/n; MIMO; Bluetooth 4.0. Wi-Fi + cellular: 802.11a/b/g/n; MIMO; Bluetooth 4.0; GSM/EDGE; CDMA EV-DO Rev. A and Rev. B; UMTS/HSPA/HSPA+/DC-HSDPA; 4G	Wi-Fi: 802.11a/b/g/n; MIMO; Bluetooth 4.0. Wi-Fi + cellular: 802.11a/b/g/n; MIMO; Bluetooth 4.0; GSM/EDGE; CDMA EV-DO Rev. A and Rev. B; UMTS/HSPA/HSPA+/DC-HSDPA; 4G	Wi-Fi: 802.11a/b/g/n; MIMO; Bluetooth 4.0. Wi-Fi + cellular: 802.11a/b/g/n; Bluetooth 4.0; GSM/EDGE; CDMA EV-DO Rev. A and Rev. B; UMTS/HSPA/HSPA+/DC-HSDPA; 4G
SIM card	Nano-SIM	Nano-SIM	Nano-SIM	Nano-SIM	Nano-SIM
Connector	Lightning	Lightning	Lightning	Lightning	Lightning
Cameras	1.2Mp FaceTime; 8Mp iSight	1.2Mp FaceTime; 5Mp iSight	1.2Mp FaceTime; 5Mp iSight	1.2Mp FaceTime; 5Mp iSight	1.2Mp FaceTime; 5Mp iSight
Sensors	Touch ID; three-axis gyro; accelerometer; ambient light sensor; barometer	Three-axis gyro; accelerometer; ambient light sensor	Touch ID; three-axis gyro; accelerometer; ambient light sensor	Three-axis gyro; accelerometer; ambient light sensor	Three-axis gyro; accelerometer; ambient light sensor
Battery life*	10 hours	10 hours	10 hours	10 hours	10 hours
Dimensions	240x169.5x6.1mm	240x169.5x6.1mm	200x134.7x7.5mm	200x134.7x7.5mm	200x134.7x7.2mm
Weight	Wi-Fi 437g; Wi-Fi + cellular 444g	Wi-Fi 469g; Wi-Fi + cellular 478g	Wi-Fi 331g; Wi-Fi + cellular 341g	Wi-Fi 331g; Wi-Fi + cellular 341g	Wi-Fi 308g; Wi-Fi + cellular 312g

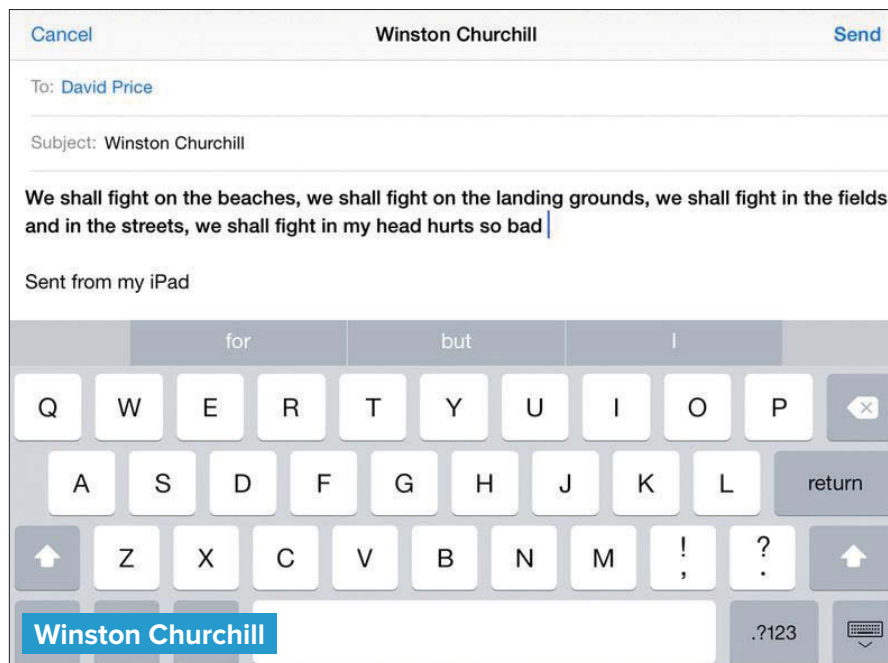
10 famous quotes mangled by iOS 8's predictive typing

David Price used QuickType's predictive typing to recreate 10 famous quotes. The results were mixed

We love the fact that, as part of the iOS 8 update, Apple made improvements to the system keyboard: iPad and iPhone owners were falling behind their Android counterparts in this area and it was high time for a change. It's great that Apple users can now install third-party system keyboards without jailbreaking their devices, and it's also great that the default keyboard has more advanced whole-word predictive typing.

However, This new predictive system – called QuickType – isn't without its eccentricities, as iOS 8 users have been discovering. Try to type whole sentences by selecting one of the three suggested words each time and you're likely to produce quite a bit of nonsense. QuickType seems to obsess over certain concepts (getting your hair, nails and make-up done comes up a lot, in this iOS user's experience) and it often gets itself into a repetitive loop.

It would be unfair to expect a consumer predictive-typing feature to show human intelligence, of course, but that doesn't stop us having a little fun. So we decided to try to recreate a few famous quotes from the worlds of film, music, literature and politics, by manually inputting the first part of the quote (the



part in italics) and then relying on QuickType's suggestions to finish it off.

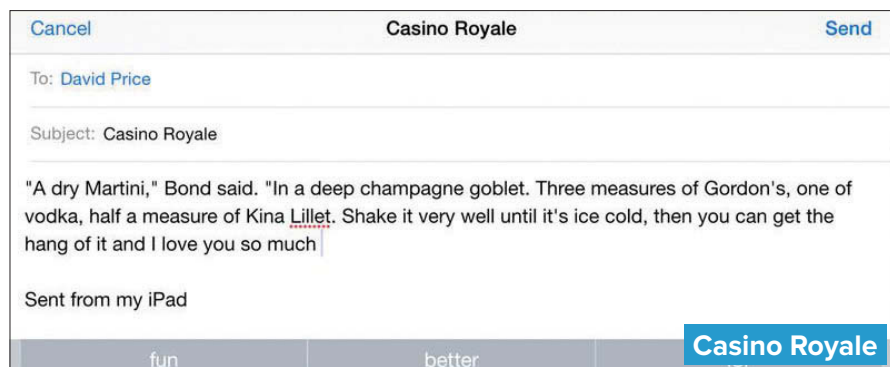
1. Daffodils

*I wandered lonely as a cloud
That floats on high o'er vales and hills
When all at once I got the job.*

Hooray! Wordsworth can stop wasting his life writing poetry.

An alternative, slightly longer version, which illustrates QuickType's tendency to get stuck in a loop:

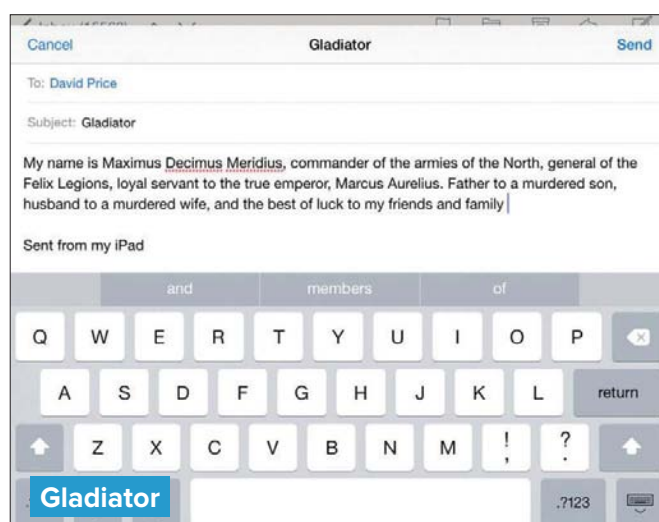
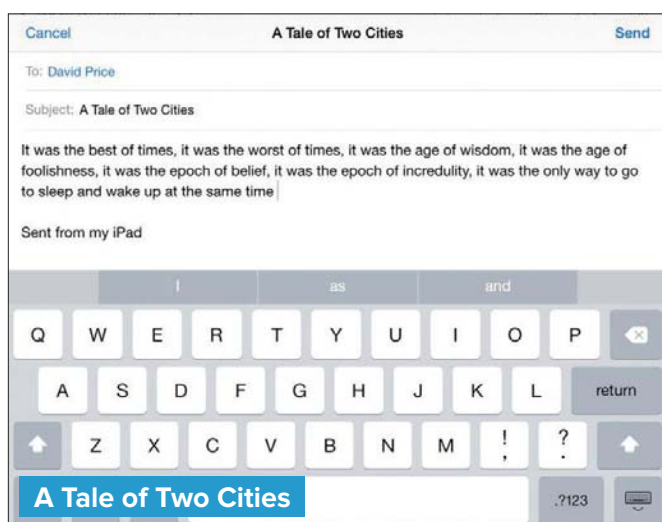
*I wandered lonely as a cloud
That floats on high o'er vales and hills
When all at once **and for the first**
time in the first time I try to get my
money back to the best thing ever is
when you get to see the point of view
of the best thing ever is when you get
to see the point of view of the best
thing ever is when you get to see the
point of view of the best thing ever is
when you get to see the point of view
of the best thing ever is when.*



2. Gladiator

*My name is Maximus Decimus Meridius, commander of the armies of the North, general of the Felix Legions, loyal servant to the true emperor, Marcus Aurelius. Father to a murdered son, husband to a murdered wife, and **the best of luck to my friends and family***

The spine-tingling bit near the end of *Gladiator* where Russell Crowe's character reveals his true identity and



puts the frighteners on Joaquin Phoenix. This rewrite is somewhat jollier.

3. Macbeth

Tomorrow, and tomorrow, and tomorrow, creeps in this petty pace from day to day, but it would be nice to see you soon and I'm not sure what to wear.

Act 5, scene 5. Macbeth's soliloquy on the death of his wife gets a new upbeat ending.

4. Pride and Prejudice

It is a truth universally acknowledged, that a single man in possession of a good fortune must be in want of a sudden urge to watch this movie.

Pride and Prejudice's famous opening line is transformed into the tagline for a film trailer.

5. The Statue of Liberty

Give me your tired, your poor, your huddled masses, yearning to get my hair done tomorrow.

This is QuickType's take on *The New Colossus*, the sonnet (by Emma Lazarus) engraved at the foot of the Statue of Liberty. If you give QuickType the chance, by the way, it will always change the subject into hairdressing.

4. Casino Royale

"A dry Martini," Bond said. "In a deep champagne goblet. Three measures of Gordon's, one of vodka, half a measure of Kina Lillet. Shake it very

well until it's ice cold, then you can get the hang of it and I love you so much.

We quite like this Bond.

4. A Tale of Two Cities

It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the only way to go to sleep and wake up at the same time.

Sort of makes sense.

7. Pythagoras

The square of the hypotenuse is equal to the sum of the square of my favourite thing about being a girl.

This is my favourite. Obviously this is based on an English approximation of the Pythagorean theorem.

8. Winston Churchill

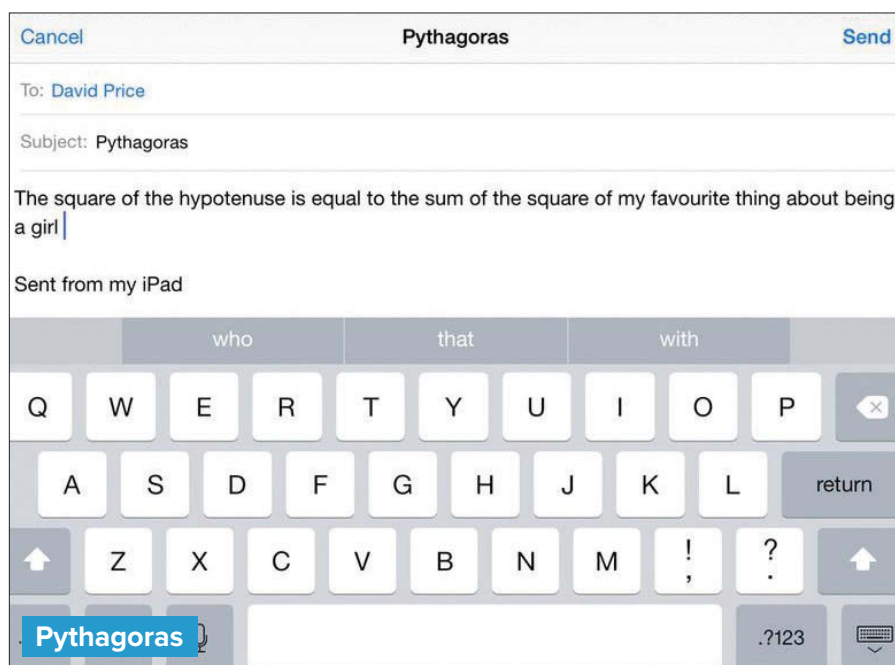
We shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in my head hurts so bad.

From the second of his three great speeches of 1940. (He did like a drink.)

9. The Smiths

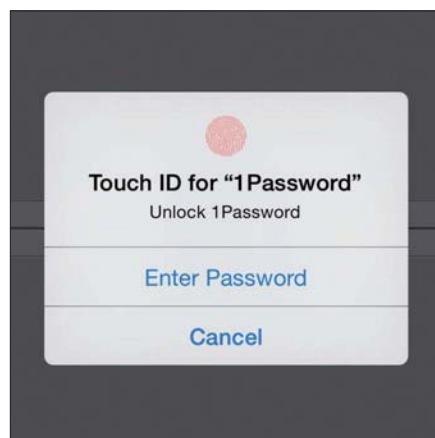
A death for no reason and death for no reason is the best thing ever.

From *Meat is Murder* by The Smiths, a furious denunciation of meat-eating.



Top fingerprint-scanning apps

Third-party developers can now integrate Touch ID into their apps. Lou Hattersley seeks out the best



1. 1Password

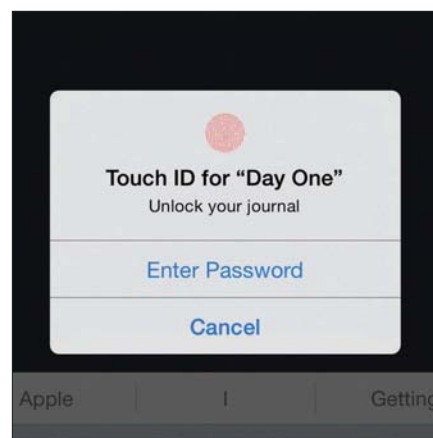
Sitting inside the Home button of the iPhone 5s and iPhone 6 is a Touch ID sensor. Touch ID not only lets you unlock your iPhone just by placing your finger or thumb against the Home button, but it is also the basis of a growing batch of security-conscious apps. Here are eight of the best in the App Store.

1. Secure website passwords

1Password is our favourite app for storing web passwords on the iPhone. With iOS 8, 1Password can use Touch ID to enter your user ID and password on any website that requests it. Just tap *Share* → *1Password* and tap your finger on the Touch ID scanner to enter your password. It's a revelation in web security.

2. Confidential notes

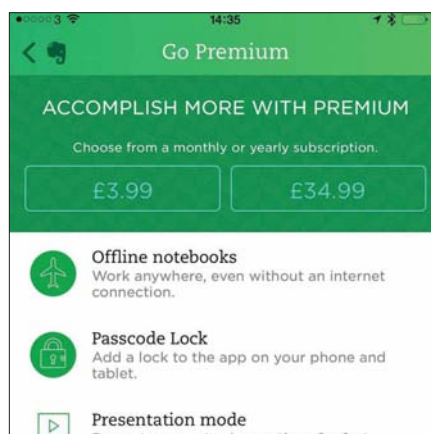
Evernote remains our favourite note-taking app, and it's capable of storing just about anything that you can write, snap or otherwise record on your iPhone. Users of the Premium version of Evernote (available for £3.99 per month) get access to a passcode lock with Touch ID compatibility (along with a whole stack of other extras).



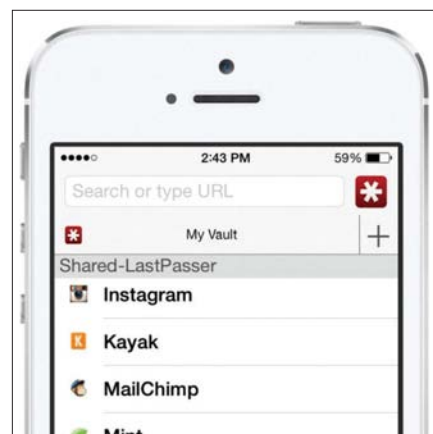
3. Day One



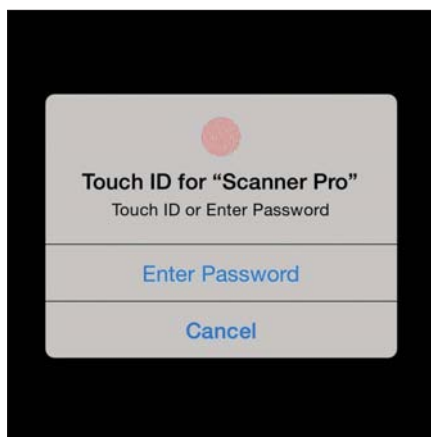
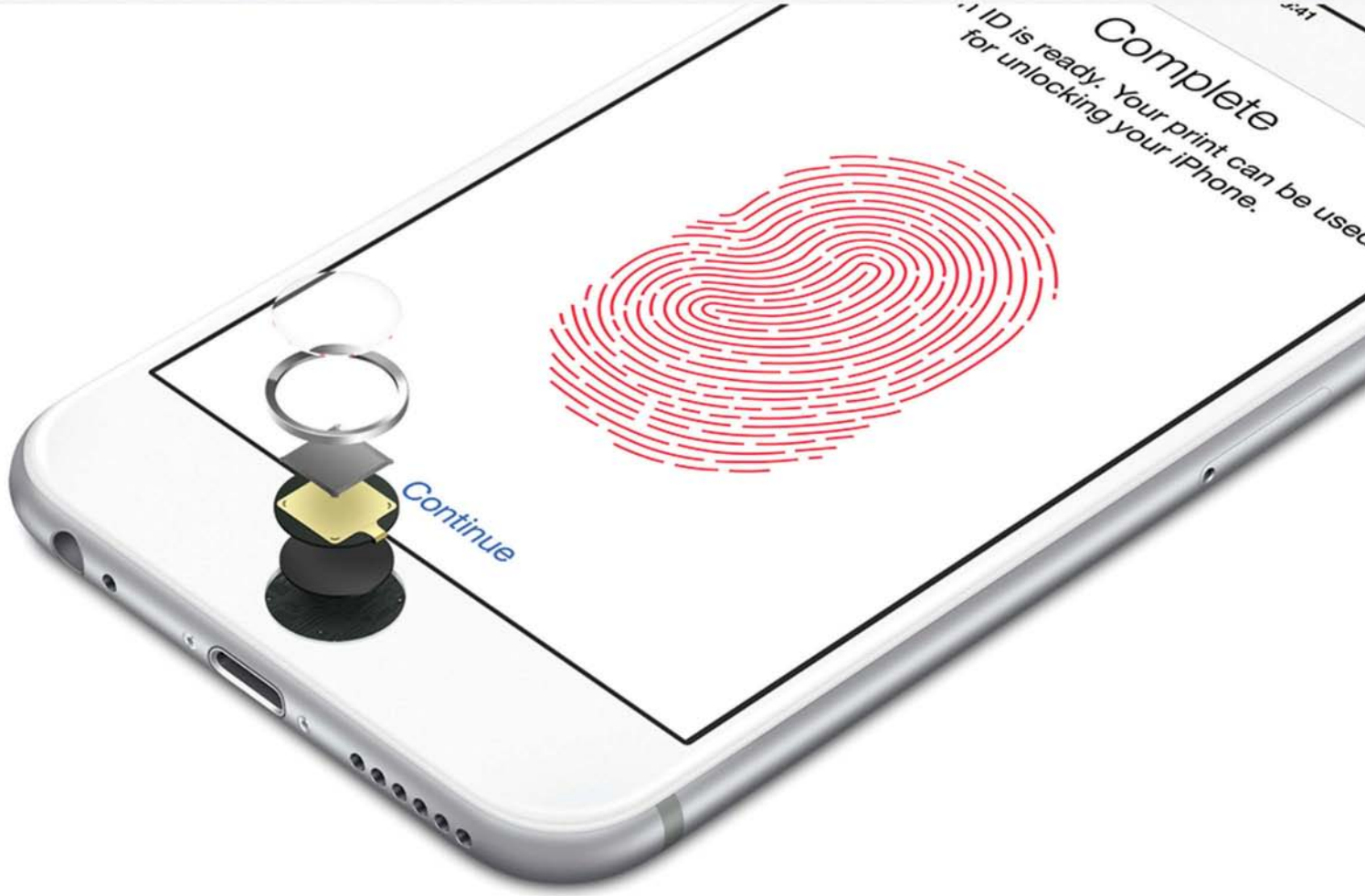
4. Amazon



2. Evernote



5. Lastpass



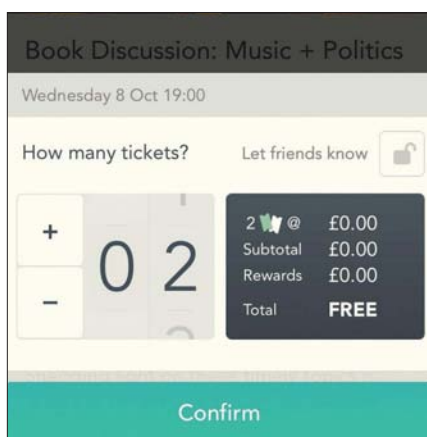
6. Scanner Pro

3. Keep your diary secret Day One is our favourite diary app, and with each update it keeps getting better. With iOS 8 it has introduced Touch ID support so you can unlock your private diary using the fingerprint scanner.

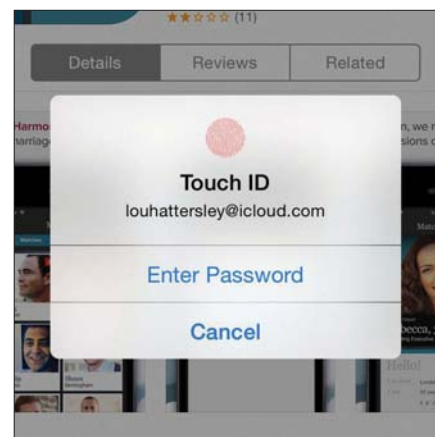
4. Shop online with Amazon Amazon sure likes to make it easy for us to give it money. Pay for your products by tapping the iPhone's fingerprint sensor. It seems to rely more on the password for now, though, but if Amazon gets more confident about using Touch ID this could be a game-changer.

5. Passwords with Lastpass Security services are a natural fit for Touch ID, and Lastpass saves all your passwords in a secure vault. Use Touch ID to add a belt to the braces and access your security even more securely.

6. Documents on your iPhone We use Scanner Pro to scan and store those important documents we want to keep safe and at hand. It uses the camera but stores documents flat, as a scanner does, instead of just photos. Touch ID adds a layer of security to the app that we are grateful for.



7. YPlan



8. eHarmony

7. Sign up for fun YPlan is a neat app for discovering what events are going on in your city (as long as that city is London). The app makes it easy for you to hook up with spontaneous social events. The Touch ID functionality also lets you book online tickets without having to enter a password.

8. Meet your match Online dating app eHarmony is the first in the matchmaking world to integrate Touch ID. Now you can get in touch with dates by pressing a button.



How to take brilliant time-lapse videos

Karen Haslam spills the secrets for taking stunning videos using your iPhone's time-lapse recording mode

One of the new features that iOS 8 brings to your iPhone is time-lapse video. You access time-lapse in the Camera app by scrolling all the way to the left to select time-lapse recording mode. You'll notice that the red record button is encircled by a timer to indicate that you are recording. Tap that to begin recording and you will see the timer counter move around the record button. Tap the record button again to stop recording.

When played back, time-lapse video is almost the opposite of slow motion. While it shows fewer frames, it shows them quickly, the result being a sped-up movie of what you were recording. The resulting video is played back at 30fps.

The length of time you spend recording doesn't significantly affect the length of the video. Most time-lapse

video recordings play back in 20 to 40 seconds regardless of how long you recorded for. This is a useful feature as it means you won't max out your iPhone storage during the recording. But it is also why the video you recorded for what may have seemed like ages isn't very much longer than one you recorded in just a few minutes.

It's all relative

According to Apple's website, the number of frames captured per second is relative to the time you are recording for. In other words, the longer you record for, the fewer the frames that will be captured each second, and the faster those frames will be played back when you come to view the resulting video. If you record for under 10 minutes, then the phone will store 2fps; however, it

will only store 1fps if you record for between 10 and 20 minutes.

And that's not the only difference. The playback speed is also relative to the length of the recording, so your sub-10-minute video will play back each frame at 15 times the original speed while a slightly longer recording will play back at 30 times that speed. So in the longer recording, you'll in effect have fewer frames playing back faster, but it will look smoother and its length is ideal for sharing with friends and family.

While a time-lapse clip will be vastly smaller in size than a video of the same scene would have been, don't expect a small file size. A 31-second clip that we shot took up 75MB yet a second-long clip still took up 4.2MB.

Apple says you can record for as long as 30 hours. We didn't try that but we are



pretty confident that the resulting video would not be significantly longer than one that is shot in 20 minutes.

Hold it steady

When you are recording, keep the iPhone still for the best results. We recommend resting the phone on something or using a tripod rather than holding it. This is partly to avoid wobble, but also because if you are attempting to hold the phone still for any length of time your hand is going to end up hurting.

The best recordings capture the contrast between moving and still objects. Keep the phone still and record traffic speeding past, or place the phone on a table and record people busily going about their business. The key is to record in a location where you can contrast still objects with moving objects.

Alternatively, you can record movement. We sat the iPhone in a car mount and recorded for a few minutes while driving a car through the Tuscan countryside with good results.

The same concept doesn't work as well when recording a time-lapse while walking around, due to the jogging of the camera. We also found that if you do scan around with the phone, you should do so as slowly as possible – remember that the smallest and slowest movements will be sped up when you play them back. The best advice is that if you are moving the iPhone around when you are recording, do so very slowly.

Go with the slow

The best time-lapse recordings are of things that change slowly. The benefit of the format here is that what could be an interminable 30-minute video of the sun setting can be condensed into an attractive 30-second clip. You could record a flower opening or a candle burning – anything that changes gradually. In essence, time-lapse allows you to bring to life something where the changes are too subtle to notice in real-time.

If you want to capture a person moving you will get the best results if they move slowly. If your subject does anything quickly, the movement may be captured in only one or two frames of action. However, you can get some funny Charlie Chaplin-style results if you record someone walking towards you.

You can also get good results if you sit the iPhone somewhere busy and record the scene in front of it.

While time-lapse recordings are designed not to use up as much memory as video, they do use a lot of battery power. If you want to record a 30-hour time-lapse you will definitely want to plug your iPhone into a power source. The camera app is one of the most power-hungry on the iPhone, so it's something to keep in mind before you get too time-lapse happy.

Changing time-lapse settings

Apple has designed the time-lapse feature to be simple to use. All the processing is done in the background, and you need only select record and stop. This means you don't get to choose how many frames are recorded or the speed of playback – that's decided by the software.

If you want more flexibility, then there are plenty of time-lapse apps available for download in the App Store. Good choices include Hyperlapse and Frameographer. Hyperlapse, for example, allows you to choose the speed at which the video plays back. It also offers good image stabilisation features.



Now I'm a believer

Michael deAgonia bought an iPhone 6 because he thought the 6 Plus would be too big – how wrong can you be?

The iPhone 6 lineup has introduced smartphones with bigger displays. I was ready for a larger screen, so quickly went out and bought an iPhone 6, thinking it would be the best match. And indeed I found it gorgeous and well built, and felt the 4.7in screen was right at the edge of what was comfortable for me.

But after spending a week with an iPhone 6 Plus, I'm not so sure. The only thing that's clear is that my next iPhone choice won't be decided so easily.

The iPhone 6 and iPhone 6 Plus have been enormous hits. Apple sold a record 10 million of them during the first weekend they went on sale.

Their slick, thin aluminium housings contain the largest iPhone displays ever – the 4.7in screen on the 6 and a 5.5in screen on the 6 Plus. Both models have a second-generation 64-bit chipset, a second-generation motion processor, updated camera systems, a new sensor for measuring air pressure, and hardware support for Apple Pay. They come in gold, space grey or silver, and in 16GB, 64GB and 128GB storage capacities.

Big-phone phobia

I've had my iPhone 6 for almost a month and I love it. But when I got the chance to use a 6 Plus for a while, I jumped at the opportunity. My first impression, though, was that it was a monster.

But first, some background. I was never a fan of larger phones. I thought them bulky and unwieldy, and ridiculous-looking for making phone calls – probably because they were actually bulky and unwieldy, especially the first ones to hit the market a few years back. Despite the 6 Plus's better battery life and upgraded camera, I opted for the iPhone 6 largely because of its size.



The 6 Plus shares the hallmark iPhone look, with the Touch ID-equipped Home button centred below the display, and the FaceTime camera, sensors and speaker centred above. The volume up/down and mute switch is still on the left, although, as with the 6, the sleep/wake button has been moved to the right. The flat sides and chamfered edges of the iPhones 4 and 5 have been replaced with a sleek chassis that seems to form itself around the phone's display; the curves influence all the materials, including the glass, giving the look of a science fiction movie prop.

The 6 Plus measures just over 6in high and 3in wide and weighs a touch over six

ounces. Despite its size, it does not feel bulky in the hand. In fact, the thin aluminium and glass materials make the 6 Plus feel luxurious. The only drawback is that I grip it a little tighter than before as the sleekness of the aluminium gives the impression of a slippery surface.

No further than your thumb

To compensate for the screen size, the Reachability feature scrolls the top-most onscreen elements down closer to your thumb after you lightly touch the Home button twice. Despite my doubts, I've grown used to one-handed operation. Of course, getting the phone to sit just right

in your hand takes a little manoeuvring, and using Reachability adds a step or two. But it's clear to me now that the iPhone 6 Plus's size becomes something you notice less over time.

Now, about that big display. I thought the iPhone 6 screen was impressive – mostly because it is – but the 6 Plus is flat-out better. Apple calls both iPhone 6 displays Retina HD, and the 6 Plus is the best iOS device available if you want to show off that feature. With its full 1080p resolution, the 6 Plus screen has 401 pixels per inch, a 1300:1 contrast ratio, and, like the iPhone 6, 'dual-domain' pixels that give wider viewing angles.

It's not just the hardware, though, it's also how the software reacts to changing conditions. Display brightness is compensated for depending on ambient conditions; as a result it looks great in low light or even direct sunlight, with adjustments made on-the-fly. Overall, images are sharp and bright. As with my iPhone 6, I had to dial back the brightness setting on the 6 Plus a bit more than I did with the iPhone 5s in low-light situations.

Taming the tremble

I loved the enhancements to the rear camera of the iPhone 6 and 6 Plus. There's the 8Mp camera with 1.5µ pixels, f/2.2 aperture, True Tone flash, burst mode, geotags, panoramas up to 43Mp large, image stabilisation, five-element lens with IR filter, on-the-fly exposure control, and more. The one thing you don't get on the iPhone 6 that is on the 6 Plus is optical stabilisation, which really helps when shooting photos in low-light conditions by reducing handshake.

The iPhone 6 Plus also has the same video capabilities of the iPhone 6. You can shoot 240fps slow motion, 1080p footage captured at 60 frames per second, continuous autofocus in videos, time-lapse abilities and the cinematic video stabilisation. Videos may not be quite steady-cam silk, but they are much smoother than without this feature.

The only drawback to the rear-facing camera is that it isn't flush with the casing, causing a slight rocking when the iPhone is lying on its back. The lens is made of

sapphire, though, so the chances of it getting scratched are slim.

The front-facing FaceTime video camera has also been improved, and is now capable of 1.2Mp shots. The sensor has been upgraded with backside illumination similar to the better-specced iSight photo camera.

Juice boost

Another area in which the 6 Plus outshines the iPhone 6 is battery life. Apple says the bigger phone will give 12 hours of use for Wi-Fi, LTE and 3G web browsing, 14 hours when watching HD video, 24 hours of talk time over 3G, 80 hours of audio playback and 16 days of standby. In my case, the iPhone 6 Plus lasted several hours longer than the iPhone 6, which in turn lasted a couple of hours longer than what I typically got with the iPhone 5s.

Through constant use, I've had the 6 Plus last nearly an entire day without plugging in. I suspect that for many people it will last much, much longer. Apparently some owners have even managed two days straight without a recharge – pretty good for an iPhone.

Despite its gorgeous and fast hardware, the iPhone still relies on iOS 8 to work well. In that sense, Apple has optimised iOS for the iPhone 6 Plus display, which uses the extra screen space to support iPad-like flourishes when the phone is held horizontally. There's a split-pane view in apps like Mail, Notes and Messages, a non-fixed and rotatable Home screen and a Safari that mimics features found on the iPad and Mac, including pinching to zoom out to tab view, and a tab menu you can swipe through. The experience brings a bit of iPad functionality to the iPhone.

The keyboard also uses the extra space in landscape mode to display more characters, including dedicated cut, copy and paste buttons.

About iOS 8

When I reviewed the iPhone 6, iOS 8 was new and buggy, and Yosemite had yet to be released. Some great features like Continuity hadn't yet arrived. Since then,

Apple has officially released Yosemite as well as iOS 8.1. That iOS update included numerous bug-fixes and went a long way to improving the stability and overall experience of using the iPhones. iOS 8.1 also enabled all the Yosemite features of Continuity, including SMS relay.

iOS 8.1 also introduced Apple Pay, which I tried out just hours after upgrading the iPhone. I drove to a McDonald's and ordered a couple of hamburgers just to see how ApplePay works. It was dead simple: I held up the top of my phone to the attendant's NFC reader, the iPhone's display awoke to the Lock Screen and showed a graphic of my default card, I touched my thumb on the Home button and a second later a checkmark appeared against the onscreen fingerprint graphic and the phone vibrated to let me know the payment succeeded. It takes longer to describe the process than to actually make a purchase.

Seeing is believing

I've now spent time with both the iPhone 6 and the 6 Plus, and it's still true, as I wrote in my original review, that the iPhone 6 Plus has the better specs while the iPhone 6 is a bit more portable.

However, what has changed is my sense of priorities. After spending time with the 6 Plus, I can see the appeal of a larger screen and better understand the perspective of Android users who have been touting larger screens for years. It was the 6 Plus that changed my mind, because its larger display makes the size of the device less intrusive than I expected. The iPhone 6 Plus balances out need for portability with the usefulness of a big screen well. Trust me, I had no problem getting the iPhone 6 Plus in the pocket of my fitted jeans.

The iPhone 6 Plus is not a monster; it's a beautiful big phone with great battery life and an unmatched software and hardware ecosystem. I wasn't sure I could get used to a device with a display this size, but the Plus has won me over. I'm happy with my iPhone 6, but the next time I upgrade, the iOS device with the larger screen won't be so easy to avoid.

iOS update reveals Apple's 16GB folly

By keeping 16GB iPhones and iPads, Apple is handicapping what could be the majority of iOS devices

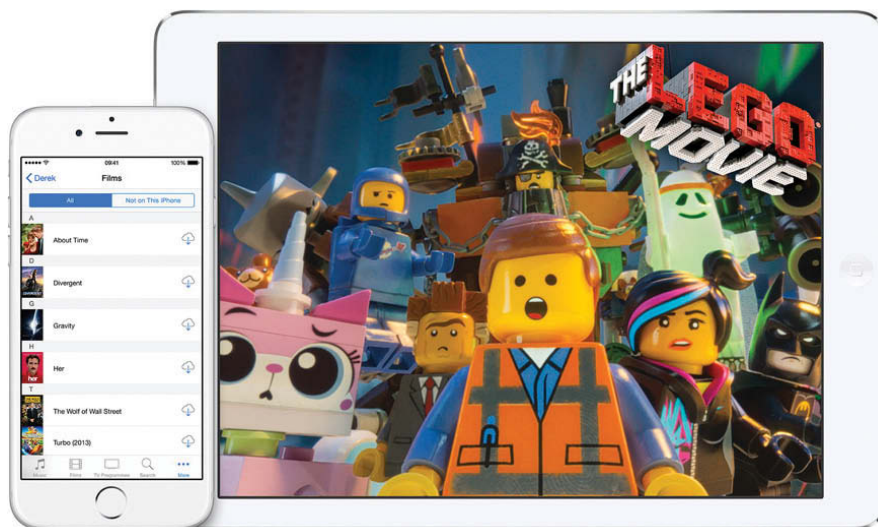
Recently, I was installing iOS 8 for my dad via iTunes on his Mac. He, like many others, hadn't installed the iOS update – in his case because he didn't want to delete 5.6GB of content from his 16GB iPad. I knew that the solution was to install via iTunes as that's exactly what I'd had to do for my 16GB iPhone.

I've written in the past about how 16GB, though limited, is still workable thanks to iCloud storage and the fact that you don't have to carry everything on your phone all the time; I've also written about how to pare down what you have on your phone so you can manage with that restricted capacity.

But there is a major problem with 16GB, and it became apparent when iOS 8 launched: if you want to install iOS 8, you need more disk space available than anyone would logically have spare if they have a 16GB device. And don't even get me started on the situation facing people with 8GB iPhones.

Without a doubt, this space requirement is the reason why uptake has been much slower for iOS 8 this time round. That plus the fact that many have never even plugged their iPad or iPhone into their Mac or PC because, in the past, Apple always made it so easy to update over the air – they don't even realise there is another way.

Even if you have a 16GB iPhone you won't have 16GB available for all your music, photos and apps. The practical free storage capacity of an iPad or iPhone is rather less than the advertised figure. A 16GB iPhone or iPad, for example, gives



you around 12.2GB of free space to play with. That's equivalent to around 3,000 songs, 15 hours of video, eight Hollywood movies or 400 apps/games – or some combination of all those. Realistically, you will have to delete something like half your content in order to make space for that iOS 8 download.

If Apple is going to continue to launch software that needs 5.8GB spare capacity to allow for its installation, then the company needs to make 32GB the entry-level iPhone and iPad. We asked Apple why it had removed the 32GB from the line-up for the new iPhone and iPad models and were told that 16GB was the most popular size. But people are not opting for 16GB of storage – they're opting for the price tag.

People will always flock to the cheapest option. But it isn't just those who are strapped for cash who end up with 16GB iPhones and iPads. The 16GB is

the phone that business users are lumbered with because when their company gets them an iPhone it buys the cheapest option on offer.

If you are buying phones for a large number of staff, it undoubtedly makes sense to save £100 per handset – a saving of £1,000 for 10 people. That's all very well until IT has to cope with installation problems. And then what happens next time? Expect companies to switch to cheaper Android phones with removable storage.

Apple has made a mistake in preserving the 16GB version – and even more of a mistake with the 8GB iPhone 5c. In its greed to get people to spend a bit more for the midrange version, Apple has handicapped what it says is the most popular price point. I can understand why (to encourage people to pay a little more to get a whole lot more storage), and I can see that Apple justifies it by saying people now get more storage for less than before (64GB where once they would have got 32GB). But the iOS 8 update shows that 16GB is not enough. Apple really does need to discontinue its 16GB iPad and iPhone models.

Apple says 16GB is the most popular size of new iPhone and iPad models – but people are not opting for 16GB of storage, they're opting for the price tag



Switching your iPad's network

Lou Hattersley explains how you can now move your iPad to a new network without changing its SIM card

Along with Touch ID and a gold model, Apple introduced a radical new feature with the iPad Air 2 and iPad mini 3 – a new type of SIM card. Called Apple SIM, the new card isn't restricted to just the one network; instead, you pick which network you want to use from within iOS.

What is Apple SIM?

The SIM (subscriber identity module) card is the small card that you fit into an iPad and use to connect to mobile internet. Until recently the SIM card was supplied by the network provider (Three, O2, Vodafone or EE in the UK) and you would insert it into the iPad using the supplied SIM card ejector tool.

The new Apple SIM comes preinstalled in an iPad Wi-Fi and cellular model. It is a regular nano-SIM and is installed using a standard SIM card slot; there had been a rumour that the SIM would be sealed

inside the iPad Air and iPad mini units but that turned out not to be the case. So Apple SIM is not a new type of SIM; it's simply one made by Apple that works with multiple networks.

Supported networks

As far as we can tell there is no specialist technology behind Apple SIM. It's just that Apple has taken control of the SIM connection. The company lists the following networks as participating US and UK carriers:

- AT&T
- Sprint
- T-Mobile
- EE

AT&T and Sprint are US networks, while T-Mobile is part of EE in the UK, so the only network you can pick in the UK is EE. Not that there's anything particularly bad about EE – it does, after all, have one of the fastest and most comprehensive 4G

networks – but it doesn't offer the best deal and Three is the most popular data network. Apple may expand the list of available networks as time goes on.

How to pick a network

With an Apple SIM installed you can pick a network from the Mobile Data window (*Settings* → *Mobile Data*). Tap the 'Set Up Mobile Data' icon to view the list of available carriers.

The good news is that there are no contracts. All the plans are short term (one month or less), so you can move from supported carriers depending on which one offers you the best deal or has the best mobile data.

Overseas networks

According to the Apple SIM website: "When you travel, you may also be able to choose a data plan from a local carrier for the duration of your trip."

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Buyers' Guide

Mac Pro

UPDATED
19/12/13

Apple's late 2013 Mac Pro has been completely redesigned inside and out. The new model has a cylindrical case, and the entire top acts as a carrying handle. That's possible because the new version is about one-eighth of the size of the previous Mac Pro tower, and stands at 9.9in tall. The new design is built around a 'unified thermal core' that aims to keep the Mac Pro cool.

Under the hood, there's an Intel Xeon E5 processor. It can have up to 12 cores, and offers double the CPU performance of the current Mac Pro. It uses a third-generation PCI Express architecture, and 1866MHz ECC DDR3 RAM. When it comes to graphics, the new Mac Pro has dual AMD FirePro workstation-class GPUs, and can run three 4K displays. It's up to two-and-a-half times faster than its predecessor, and delivers seven teraflops of computer power.

Apple is outfitting the new Mac Pro with PCIe-based flash memory, which is 10 times faster than traditional desktop hard drives. It has four USB 3.0 ports, six Thunderbolt 2 sockets, gigabit ethernet and HDMI.



Price: From £2,499

Pros: PCIe flash memory; six Thunderbolt 2 ports

Cons: No internal expansion options

Macworld preview: tinyurl.com/prj4vp9

MacBook Pro

UPDATED
11/06/12

Apple removed the 15in model from its non-Retina MacBook Pro range, so only a 13in version is available. Apart from this nothing has changed – it has the same unibody design, upgradability and price, and it remains the only MacBook to have an optical drive. On the inside, there's an Intel Core i5 Ivy Bridge processor, 4GB RAM and a 500GB, 5400rpm hard drive. Connectivity options include USB 3.0, Thunderbolt, FireWire and ethernet. While these specs aren't as impressive as Apple's other MacBooks they are still more than enough for the non-creative professional or the home user. If you want to future-proof your computer, then a number of configuration options are available at the point of purchase, including a 2.9GHz Intel Core i7 processor, 8GB RAM and a 1TB hard drive. Plus, it will run OS X Mavericks, and any other Mac software you may already have.



Price: £899

Pros: USB 3.0; Intel Core i7 Ivy Bridge processors; nVidia graphics; Thunderbolt

Cons: No 15in model available; no Retina display

Full review: tinyurl.com/nsbusw4

iMac

UPDATED
17/10/14

Apple has added a Retina display iMac to its range of all-in-one computers. Only the 27in model gains this – the 21in version doesn't get a hi-res screen. If, however, you don't want the extra expense of a non-Retina 27in option is still available.

All the iMacs come with Intel's fourth-generation Haswell processor. The benefits of this for desktop computers are not as profound as for laptops, as a big factor is lower power consumption, and therefore better battery life. But, Haswell could mean you'll save on your electricity bill, and it will help your machine stay quieter and cooler.

The iMac retains the slimline aluminium design of its predecessor along with the beautiful-looking display. build-to-order options is the Fusion Drive – a hybrid storage device combining flash storage with a regular hard drive.



Price: 21.5in £899 to £1,199; 27in £1,449 to £1,599; Retina 5K display, £1,999

Pros: Retina display option, thin design; updated processor; improved graphics

Cons: No optical drive or FireWire 800 ports

Full review: Retina display, tinyurl.com/qhb5rs8; tinyurl.com/pfu6xox

MacBook Air

UPDATED
29/04/14

This year's MacBook Air line-up isn't all that different to last year's model, apart from a substantial price decrease. As previously, the 2014 options are available in four standard configurations: two with 11.6in screens and two with 13.3in screens. The new prices place the entry-level 128GB 11in MacBook Air at £749, down £100 from £849. Pricing changes aside, there's a subtle increase in processor speeds for the new machines. All four configurations have the same Intel 1.4GHz dual-core Core i5 processor, which is 100MHz faster than the 1.3GHz dual-core Core i5 processor found in the mid-2013 Air. Everything else is the same as last year's model: 4GB of DDR3 memory, Intel HD 5000 integrated graphics, and either 128- or 256GB of PCIe-connected flash storage. The 11.6- and 13.3in displays keep the same resolutions, 1366x768 and 1440x900, respectively – the new

Air doesn't include a Retina display like some analysts had predicted. We were disappointed that the new Airs didn't perform as well in our speed tests as last year's models, although in many tests the newer models outperformed the 2013 versions.



Price: 11in £749 to £899; 13in £849 to £999

Pros: Stylish; super-slim; great battery life; price has been reduced

Cons: Still no Retina display

Full review: tinyurl.com/Ldxfyks

MacBook Pro Retina display UPDATED 29/07/14

Apple has upgraded its MacBook Pro with Retina display line-up. The 13- and 15in models have been given a small speed bump and their prices cut. It seems likely that Apple has made these slight tweaks to the range predominantly to allow it to bring down pricing, but also because Intel's Broadwell processors – the successor to the Haswell chips used in these Macs and the generation before them – aren't yet available. The screen itself hasn't been upgraded, but it's still stunning: the 15in version offers a resolution of 2880x1800 pixels; while the 13in option has an equally striking 2560x1600 pixels. Connectivity options are just as impressive and include 2x Thunderbolt 2, 2x USB 3.0 and 1x HDMI ports. The MacBook Pros in this line-up also have the same dimensions and weigh the same as the late 2013 line-up, making it a great portable option.



Price: 13in £999 to £1,399; 15in £1,599 to £1,999

Pros: Stunning Retina display; USB 3.0; thin design; Haswell processors

Cons: No optical drive; expensive; small storage options

Full review: 13in, tinyurl.com/LctLqL8; 15in, tinyurl.com/pugvnuf

iPad mini 3 UPDATED 17/10/14

The most obvious new addition to the iPad mini 3 is Touch ID, which will allow you to unlock the device, and to open compatible apps. Apple has also introduced a gold version to the range. That, however, is it as far as new features are concerned. This isn't to say this isn't a great little tablet. It still has a gorgeous-looking Retina display, which offers 326ppi and its diminutive size means it will easily fit into a bag. To power this tablet, Apple has decided to use the same A7 chip as the iPad mini 2 and not the A8X found on the Air 2. The battery life is also the same as its predecessor – 10 hours.



Price: Wi-Fi £319 to £479; Wi-Fi + 4G £419 to £579

Pros: Touch ID; Retina display

Cons: Little to make it stand out from its predecessors

Full review: tinyurl.com/LgLq54t

Mac mini UPDATED 17/10/14

Externally, the Mac mini is more or less unchanged from its previous incarnation, save for the introduction of Thunderbolt 2 ports and the loss of FireWire. It's 19.7cm square and 3.6cm deep, which is where it earns its 'mini' name. The entry-level model has a 1.4GHz dual-core i5 chip and 500GB hard drive, while the mid-range option comes with a 2.6GHz dual-core Intel Core i5 chip and a 1TB hard drive. The top model has a 2.8GHz dual-core Intel Core i5 processor and 1TB Fusion Drive. Every model is configurable should you want to boost the specs of your Mac mini. Among the £799 model's build-to-order options are a 1TB SSD, a 3GHz dual-core Intel Core i7 chip and 16GB of RAM. You should note that while this is Apple's most affordable system, you'll need to factor in the cost of a monitor, keyboard and mouse.



Price: £399 to £799

Pros: Thunderbolt 2; small size; 1TB Fusion Drive on top model

Cons: Doesn't come with a monitor, keyboard or mouse

Full review: tinyurl.com/k7c4akh

iPad Air 2 UPDATED 17/10/14

Apple has updated its iPad range, and this time around the company has continued its mantra that slimmer is better – it now measures just 6.1mm wide. It's also lighter than its predecessor – 437g compared to 469g. However, despite its low weight and slimline design, it still feels solid. The big addition is the introduction of Touch ID, which you'll be able to use to unlock the tablet, and to open various apps. The slimline tablet also comes with a new chip – the A8X. This offers a 64-bit architecture and three billion transistors and, according to Apple, is 40 percent faster than the original iPad Air. Another benefit of this processor is that it uses quad-core graphics, something that game developers will be keen to utilise.



Price: Wi-Fi £399 to £559; Wi-Fi + 4G £499 to £659

Pros: Touch ID; A8X chip; slimmer than ever; beautiful screen

Cons: If you already own an iPad there's not enough here to warrant an upgrade

Full review: tinyurl.com/mg9t2cx

Buyers' Guide

iPhone 6

UPDATED
19/09/14

It's clear that the most important change with the iPhone 6 is its size. Yes, the processor is a bit faster and the camera is slightly improved, but it's the 4.7in display that makes the biggest difference. It means a better experience when watching TV shows or movies on your iPhone, it displays photos better, and it allows more information to be shown on the screen at once. In terms of connectivity, the iPhone 6 has better LTE capabilities, and it also has NFC for the first time, which will work together with the company's new Apple Pay mobile payment service. This won't be introduced to the UK until sometime in 2015, though. If you've got an iPhone 5 or older, then the 6 is a solid upgrade that you'll get used to after just a few days of adjustment, but 5s owners might want to consider waiting another year for the iPhone 6s as they've already got a brilliant smartphone and aside from that bigger display the iPhone 6 doesn't bring many other new features to the table.



Price: 16GB £539; 64GB £619; 128GB £699

Pros: New design more comfortable to hold; improved screen

Cons: Requires inconsistent 'Reachability' tool for one-handed use

Full review: tinyurl.com/k2eLj77

iPhone 6 Plus

UPDATED
19/09/14

iPhone 6 Plus is a stunning piece of design, and its sumptuous 5.5in screen will be a magnificent showpiece for the latest games, movies and web pages. It's also available in capacities up to 128GB, which is great if you want to store lots of programmes and films on your device. The 64-bit A8 chip will improve performance. Whether the clever Reachability feature will be enough to solve the problems of such a large smartphone remain to be seen, however, and the price tag remains intimidating. The iPhone 6 Plus is a huge leap from the iPhone 5s, not in terms of technology so much as in terms of its physical presence. It won't be for everyone, but we are sure that it will pick up many advocates for whom the bigger screen is ideal.



Price: 16GB £619; 32GB £699; 128GB £789

Pros: Great-looking screen; beautiful design;

Cons: Expensive; rear camera sticks out a little;

Full review: tinyurl.com/kn36zee

iPhone 5c

UPDATED
20/09/13

The 5c is the cheapest of Apple's iPhone models. As our *Macworld US* colleagues put it, the 5c "looks a bit like the iPhone 5 had a baby with the plastic-backed iPhone 3GS". This is the first time Apple's handset has been available in anything other than black and white – it's available in pink, yellow, blue, green or white. It's constructed from a polycarbonate shell, crafted from a single piece of plastic, and feels good to hold and well built without being heavy. On the inside is a A6



chip, the same processor as the iPhone 5. If you are thinking of buying a 5c, you should note that since Apple updated its iPhone range, this handset is available only with 8GB of storage, which may not be enough if you have lots of apps.

Price: 8GB £319

Pros: Won't slip out of your hand; colourful; cheapest iPhone

Cons: Only an 8GB version available; colours not to everyone's taste

Full review: tinyurl.com/qjogxkf

iPhone 5s

UPDATED
20/09/13

As with previous iPhone 's' model launches, the 5s looks very similar to its predecessor and feels similar, too, with no noticeable added weight and not much new to look at. However, there are three colour options: silver, gold and 'space grey'. In addition to these colours, the 5s has a metallic ring around the Home button, which is part of the new Touch ID fingerprint sensor feature. This unlocks the device, although you'll still need a passcode as a backup to access the



device. In addition to unlocking the 5s, the sensor can be used to make secure purchases from the iTunes Store or the iBookstore. On the inside there's a new A7 chip, making it the first 64-bit phone. According to Apple this means the 5s is twice as fast as the 5. The camera has also been given a significant boost. While it's still 8Mp, it features a five-element Apple-designed lens with a larger f/2.2 aperture. A dual-LED flash should mean better low-light photos.

Price: 16GB £459; 32GB £499

Pros: Decent camera; new colours; fingerprint sensor

Cons: No battery improvements

Full review: tinyurl.com/kn36zee

Technical specifications

Product	Processor	Display	RAM	Storage	Ports and connections	Graphics card	Star rating	Price
Mac mini	1.4GHz dual-core Intel Core i5	None	4GB	500GB (5400rpm)	2x Thunderbolt 2, 4x USB 3.0, HDMI, SDXC card slot, gigabit ethernet, audio in, headphone, IR receiver	Intel HD Graphics 5000	N/A	£399
	2.6GHz dual-core Intel Core i5	None	8GB	1TB (5400rpm)	2x Thunderbolt 2, 4x USB 3.0, HDMI, SDXC card slot, gigabit ethernet, audio in, headphone, IR receiver	Intel Iris Graphics	N/A	£569
	2.8GHz dual-core Intel Core i5	None	8GB	1TB Fusion Drive	2x Thunderbolt 2, 4x USB 3.0, HDMI, SDXC card slot, gigabit ethernet, audio in, headphone, IR receiver	Intel Iris Graphics	N/A	£799
iMac Retina 5K display	3.5GHz quad-core Intel Core i5 processor	27in Retina	8GB	1TB Fusion Drive	Headphone, SDXC card slot, 4x USB 3.0, 2x Thunderbolt 2, gigabit ethernet	AMD Radeon R9 M290X	N/A	£1,999
iMac	1.4GHz dual-core Intel Core i5	21.5in LED (BL)	8GB	500GB (5400rpm)	Headphone, SDXC card slot, 4x USB 3.0, 2x Thunderbolt 2, gigabit ethernet	Intel HD Graphics 5000	★★★★☆☆	£899
	2.7GHz quad-core Intel Core i5	21.5in LED (BL)	8GB	1TB (5400rpm)	Headphone, SDXC card slot, 4x USB 3.0, 2x Thunderbolt 2, gigabit ethernet	Intel Iris Pro Graphics	★★★★★★	£1,049
	2.9GHz quad-core Intel Core i5	21.5in LED (BL)	8GB	1TB (5400rpm)	Headphone, SDXC card slot, 4x USB 3.0, 2x Thunderbolt 2, gigabit ethernet	nVidia GeForce GT 750M with 1GB of GDDR5 memory	★★★★★★	£1,199
	3.2GHz quad-core Intel Core i5	27.5in LED (BL)	8GB	1TB (7200rpm)	Headphone, SDXC card slot, 4x USB 3.0, 2x Thunderbolt 2, gigabit ethernet	nVidia GeForce GT 755M with 1GB of GDDR5 memory	★★★★★★	£1,449
	3.4GHz quad-core Intel Core i5	27.5in LED (BL)	8GB	1TB (7200rpm)	Headphone, SDXC card slot, 4x USB 3.0, 2x Thunderbolt 2, gigabit ethernet	nVidia GeForce GTX 775M with 2GB of GDDR5 memory	★★★★★★	£1,599
Mac Pro	3.7GHz quad-core Intel Xeon E5	None	12GB	256GB (configurable to 512GB or 1TB)	4x USB 3.0, 6x Thunderbolt 2, dual gigabit ethernet, HDMI 1.4 Ultra HD	Dual AMD FirePro D300	N/A	£2,499
	3.5GHz six-core Intel Xeon E5	None	16GB	256GB (configurable to 512GB or 1TB)	4x USB 3.0, 6x Thunderbolt 2, dual gigabit ethernet, HDMI 1.4 Ultra HD	Dual AMD FirePro D300	N/A	£3,299
MacBook Pro with Retina display	2.6GHz dual-core Intel Core i5	13in Retina	8GB	128GB flash storage	2x Thunderbolt 2, 2x USB 3.0, HDMI, SDXC card slot	Intel Iris Graphics	★★★★★★	£999
	2.6GHz dual-core Intel Core i5	13in Retina	8GB	256GB flash storage	2x Thunderbolt 2, 2x USB 3.0, HDMI, SDXC card slot	Intel Iris Graphics	★★★★★★	£1,199
	2.8GHz dual-core Intel Core i5	13in Retina	8GB	512GB flash storage	2x Thunderbolt 2, 2x USB 3.0, HDMI, SDXC card slot	Intel Iris Graphics	★★★★★★	£1,399
	2.2GHz quad-core Intel Core i7	15in Retina	16GB	256GB flash storage	2x Thunderbolt 2, 2x USB 3.0, HDMI, SDXC card slot	Intel Iris Pro Graphics	N/A	£1,599
	2.5GHz quad-core Intel Core i7	15in Retina	16GB	512GB flash storage	2x Thunderbolt 2, 2x USB 3.0, HDMI, SDXC card slot	Intel Iris Pro Graphics + nVidia GeForce GT 750M	★★★★★★	£1,999
MacBook Pro	2.5GHz dual-core Intel Core i5	13in LED (BL)	4GB	500GB (5400rpm)	2x USB 3.0, HDMI, SDXC card slot, FireWire 800, Thunderbolt	Intel HD Graphics 4000	N/A	£899
MacBook Air	1.4GHz dual-core Intel Core i5	11in LED	4GB	128GB flash storage	2x USB 3.0, Thunderbolt	Intel HD Graphics 5000	★★★★★★	£749
	1.4GHz dual-core Intel Core i5	11in LED	4GB	128GB flash storage	2x USB 3.0, Thunderbolt	Intel HD Graphics 5000	★★★★☆☆	£899
	1.4GHz dual-core Intel Core i5	13in LED	4GB	128GB flash storage	2x USB 3.0, Thunderbolt, SDXC card slot	Intel HD Graphics 5000	★★★★★★	£849
	1.4GHz dual-core Intel Core i5	13in LED	4GB	128GB flash storage	2x USB 3.0, Thunderbolt, SDXC card slot	Intel HD Graphics 5000	★★★★★★	£999



Apple AirPort Time Capsule

Full review: tinyurl.com/Lh6pjqu



apple.com/uk, 2TB £249, 3TB £349

Back up your Mac with AirPort Time Capsule, Apple's wireless hard drive that works with Time Machine in OS X. This new version is also a Wi-Fi base station featuring 802.11ac technology, which is said to provide up to three times faster Wi-Fi than 802.11n.

Pros: Easy to use; combines network storage and high-speed 802.11ac Wi-Fi in a single unit

Cons: Expensive; doesn't include an ADSL or modem cable



Apple AirPort Extreme Base Station

Full review: tinyurl.com/mfdLLsc



apple.com/uk, £169

The latest version of the AirPort Extreme Base Station offers dual-band Wi-Fi technology to provide wireless access for devices including Macs, iOS devices and the Apple TV.

Pros: Excellent performance; nice design; easy to set up

Cons: Expensive; lacks advanced features



Apple Lightning to 30-pin adaptor

Full review: tinyurl.com/nkqfbfz



apple.com/uk, £25

If you want to connect the iPhone 5, 5s or 5c to an speaker system with a 30-pin dock, or other 30-pin audio or syncing dock device, then this is the way to do it (although we'd suggest the version with a cable to avoid the precarious balancing act). We're disappointed that it works only with audio and not video.

Pros: Enables you to connect the iPhone 5, 5s or 5c to older dock and speaker systems

Cons: Puts an extra 2cm on the iPhone 5; Lightning feels a bit small to be holding up an iPhone; doesn't output video; expensive



Apple Thunderbolt Display

Full review: tinyurl.com/nkhkzm8



apple.com/uk, £899

For owners of the 2011 MacBook Air, the Thunderbolt Display is a fantastic way to get iMac-like features in one of the lightest laptops available. If your Mac doesn't have Thunderbolt, the inflexible Thunderbolt Display is a little less interesting.

Pros: Can charge Apple laptops; USB 2.0, FireWire 800 and ethernet connectivity; single cable from Mac cuts down clutter

Cons: Stand lacks flexibility; reflective screen limits display placement; few customisation options



Apple 27in LED Cinema Display

Full review: tinyurl.com/onaxe2n



apple.com/uk, £899

Apple's 27in LED Cinema Display makes a good companion to any Mac with a Mini DisplayPort connection, but is especially well suited to portable Mac users who can take advantage of the MagSafe power connector and the display's USB ports to attach peripherals.

Pros: MagSafe connector to charge Mac portables; built-in speakers and iSight

Cons: Limited adjustment options; glossy screen is prone to glare; Apple doesn't officially support using the display with anything but Mini DisplayPort



Apple Magic Trackpad

Full review: tinyurl.com/qd474vb



apple.com/uk, £59

If you're a desktop Mac user and a fan of the multitouch trackpads on Apple's laptops, the Magic Trackpad is for you. It gives you the same clickable glass surface and multitouch gestures as those laptop trackpads in a wireless desktop model, with the bonus of nearly twice the trackpad area.

Pros: Large multitouch surface; works identically to Apple's laptop trackpads; rugged, portable design matches Apple's keyboards; easy setup

Cons: Not as precise as using a mouse or trackball; not ideal for large screens or multiple displays



Apple Magic Mouse

Full review: tinyurl.com/nc9o95e



apple.com/uk, £59

Although it's not perfect, the Magic Mouse successfully combines design and usability. It's great as a two-button wireless mouse, but if you need more than two buttons, the Magic Mouse is not for you.

Pros: Looks stunning; multitouch is easy to master; excellent tracking; very fast reconnect after idle

Cons: Low profile; may not be comfortable for larger hands; some modes are confusing; buttons and speed settings can't be programmed; expensive



Apple Keyboard

Full review: tinyurl.com/px5rj8c



apple.com/uk, £56

As a portable option that makes typing on the Mac more comfortable, Apple's own Bluetooth keyboard also complements any iOS device, although you would need an additional case or stand for your iPhone or iPad to make typing truly convenient.

Pros: Low profile; lightweight; portable; Apple function keys; instant pairing; great brushed-aluminium styling

Cons: Some function keys missing; no carry case; no numeric keypad; could be too cramped for some users; no dock for iOS devices



Apple TV

Full review: tinyurl.com/q3qa6pz



apple.com/uk, £79

There's a lot to like about the Apple's set-top box: it's well-built and easy to use; and now that Apple has reduced the price, it's no longer the most expensive option for streaming TV. However, the Apple TV – at least in the UK – still doesn't offer the variety of content offered by much of the competition.

Pros: Relatively inexpensive, easy-to-use and stylish set-top box

Cons: Not much content; ties you in to iTunes



Apple AirPort Express Base Station

Full review: tinyurl.com/q4xqsqz



apple.com/uk, £79

Owning an Apple router is a great option for those with multiple Apple devices, and it's an easier and smarter way to set up and manage a network in the home or small office. Its big brother's faster ethernet connections and external hard drive support may be worth paying the extra for.

Pros: Small and neat; AirPlay functionality; dual antennae; good software interface that can be used from Mac or iOS device

Cons: No longer plugs directly into a wall; has only 100base-T ethernet sockets



Apple OS X Yosemite

Full reviews: tinyurl.com/ohv23hs

N/A

apple.com/uk, Free

Apple's latest operating system is available to download now and comes with some exciting new features. The biggest of these is Continuity, which makes it easier to work with, and switch between, all your OS X and iOS devices. Yosemite has also been redesigned, making it easier to use.

Pros: Continuity between Mac OS and iOS; redesigned interface; free to upgrade

Cons: Not all of the features work on every Mac – AirDrop and Continuity



Apple iOS 8

Full reviews: tinyurl.com/kmavwnw

★★★★★

Macworld
EDITORS' CHOICE

apple.com/uk, Free

iOS 8 has a host of small but convenient tweaks (particularly in Messages, Mail and Photos, but throughout the system), and opens up new possibilities for app developers to get creative. Widgets are a big addition, third-party keyboards are a huge addition, and we can't wait to see what games developers do with Metal.

Pros: Continuity between Mac OS and iOS; widgets; QuickType and third-party keyboards

Cons: Needs a large amount of space to install



Apple Final Cut Pro X 10.1

Full reviews: tinyurl.com/phs7zc7

★★★★☆

apple.com/uk, £199

With Final Cut Pro X, Apple's video editor has finally come of age, with improvements such as enhanced libraries and improved timing options. The software has also been optimised to make full use of the new Mac Pro.

Pros: Flexible media management; added editing functionality; third-party plug-in support; 4K editing workflow

Cons: Collaborative workflows needs careful management



Apple Logic Pro X

Full reviews: tinyurl.com/nfgavnz

★★★★★

Macworld
EDITORS' CHOICE

apple.com/uk, £139

Logic Pro X offers a lot of great new features at a price that even starving musicians can afford. Thanks to its easier-to-use interface, Logic Pro X becomes a viable next step for GarageBand users, and everyone with an iPad should be happy with the convenience wrought by the free Logic Remote app.

Pros: Affordable; easy-to-use interface; realistic sounds; great new features

Cons: Not compatible with 32-bit plug-ins



Apple iTunes 12

Full reviews: tinyurl.com/kj32hvu

★★★★☆

apple.com/uk, free

Apple's new iTunes 12 makes the music manager cleaner, clearer and easier to use, but it's still missing out on a whole generation of social media. It's time Apple took iTunes apart and rebuilt it from scratch.

Pros: Cleaner interface; neat integration of media library and iTunes Store; apps starting to become less prominent

Cons: Remains a cluster of many disparate services; lacks focus; no iTunes Radio in the UK; lacks Facebook or social media integration; missing HD Audio



Apple iLife: iMovie, iPhoto, iPhoto

Full reviews: tinyurl.com/Lpz6sdL,
tinyurl.com/L55ycea, tinyurl.com/qa5bq4z

★★★★★

apple.com/uk, free upgrade or £10.49

Apple has overhauled its iLife range of applications, which have been redesigned to work with both OS X Mavericks and iOS 7. Along with support for iCloud integration and 64-bit coding, the software offers users a streamlined interface and hundreds of new features.

Pros: iMovie: Better editing tools; new interface. iPhoto: 64-bit support offers improved performance

Cons: iMovie: Crashes some older Macs; can no longer create a podcast. iPhoto: No more chapter markers. iPhoto: Photo Stream sharing options are poorly explained



Apple iWork: Keynote, Numbers, Pages

First reviews: tinyurl.com/mkfd9to,
tinyurl.com/nov5uor, tinyurl.com/ofht5qg

★★★★☆

apple.com/uk, £13 each

It's been a long time coming, but Apple has finally updated its suite of iWork applications. Each program has been designed to be used on the Mac, iOS and iCloud, so you'll be able to edit a document from different devices. Not only that, but the suite has a new interface that promises to make creating beautiful documents easy.

Pros: Keynote: Simplified toolbar; new transitions and animations. Numbers: Beautiful interface; saves documents online. Pages: Excellent editing tools; Format Inspector

Cons: Keynote: Interface over-simplified. Numbers: Scrappy Excel conversion. Pages: Missing standalone page-layout tools



iWork for iCloud beta: Pages, Keynote, Numbers

Full review: tinyurl.com/kk5cvyv

N/A

apple.com/uk, free

tinyurl.com/osz2w97, tinyurl.com/nfn843c

The different applications that make up iWork for iCloud are beautiful to behold and capable of making equally gorgeous documents. Although we encountered a few bugs, for example, you can't collaborate with others in Pages, it is still in beta. And it's free.

Pros: Gorgeous interface; can access and edit documents anywhere; saves documents online; free

Cons: Not compatible with all browsers; not as many tools as desktop counterparts



Apple Aperture 3

Full review: tinyurl.com/ppc2d6d

★★★★☆

apple.com/uk, £54

A lot has changed in this version of Aperture, so much in fact that it feels a little different, but it's all the better for it: improved RAW engine, updated sorting options, more powerful search features, much more versatile adjustments tools, among many others.

Pros: Vastly improved slideshows; impressive new brushes; multitouch aware; ability to split and merge libraries; easy export to Flickr and Facebook

Cons: Sporadic reports of problems when upgrading older libraries; web page creation not overhauled; need a powerful Mac and lots of RAM to run well



Apple Logic Express 9

Full review: tinyurl.com/qcyo2yu

★★★★★

Macworld
EDITORS' CHOICE

apple.com/uk, £159

Logic 9 is first-class home-recording software for all types of musicians, especially guitarists. It offers streamlined audio editing, plenty of loops and instruments, stacks of virtual amps/speakers and pedals for guitarists, and it reads GarageBand files.

Pros: Plenty of virtual amp/speaker/pedal combos; ability to add chord diagrams to printed music; lots of loops and instruments; high-quality effects

Cons: Interface still dense despite streamlining; could use more templates and a tutorial for beginners

Buyers' Guide

IOS APPS: GAMES



TwoDots

weplaydots.com, Free (in-app purchases)

Although connecting dots may not be the most thrilling of concepts, the introduction of levels with increasing difficulty throughout adds a level of addictiveness that the original 'Dots' just can't match. The simple design of the game still remains, with all the attention on the puzzle in hand.

Pros: Fun; simple design; addictive

Cons: Could get expensive if you don't resist in-app purchases

Full review: tinyurl.com/oeznua



Thomas Was Alone

bossastudios.com, £3.99

Thomas Was Alone is artful without graduating into a full-on art game, and an accomplished piece of game design. It's an attractive, thoughtful and original series of platforming puzzles, with an unexpectedly satisfying (if light) story popping its head in from time to time. A fine iPad game.

Pros: Clever platform-puzzle gameplay; beautiful and original design; finely-tuned difficulty curve

Cons: Danny Wallace's voice-over is rather jaunty, though, this can be turned off; hardcore puzzle addicts may not find the game brutal enough

Full review: tinyurl.com/Lv7gtse



Leo's Fortune

leosfortune.com, £2.99

A visually dazzling, fast-paced – and now Apple Design Award-winning – platform game that's frequently a treat, but also sometimes a bit too tough for its own good. Still, the smart design ensures that almost anyone can finish the quest, and speedruns are there for the truly dedicated to master.

Pros: Plenty of levels; inventive traps; looks lovely; surprisingly great voice acting

Cons: A few too many leaps into the unknown; insanely tight speedrun targets

Full review: tinyurl.com/ncq65cu



FTL: Faster Than Light

ftlgame.com, £6.99

It's not cheap for an iPad game, but FTL: Faster Than Light is well worth the money, thanks to its gripping, merciless gameplay and rich depth of content. (This game incorporates the Advanced Edition that PC gamers will be familiar with.) Highly recommended.

Pros: Tense gameplay; addictive; every game is different

Cons: Expensive; some might find it off-puttingly cruel

Full review: tinyurl.com/nt7ymmk



Threes!

asherv.com/threes, £1.49

Threes is a great iPhone puzzle game. Attractive, potentially addictive, simple yet full of strategic depth, Threes (or 'Threes!' to give the official title) is an early contender for iOS game of the year. A wholehearted recommendation.

Pros: Beautifully simple interface; real strategic depth

Cons: Lack of instant restart button

Full review: tinyurl.com/qzyqwwL



IOS APPS: VIDEO & PHOTOGRAPHY



Adobe Lightroom Mobile for iPad

adobe.com/uk, free as part of Adobe Creative Cloud

If you are a Creative Cloud subscriber and a power user of Lightroom 5.4, downloading this to your iPad is a no-brainer. Despite several glaring omissions, which hopefully will be addressed in version 2.0, it offers a useful mobile extension to a professional photography workflow.

Pros: Sync with Lightroom Desktop; Collections; range of image adjustments and preset effects; integration with iOS camera roll

Cons: Limited rating system; no keywording; no RAW support; available only to Creative Cloud subscribers; slow to sync; no Flickr or Behance; exports low-res proxy files

Full review: tinyurl.com/pmet6r7



VSCO Cam

vSCO.co, free

A great set of editing tools along with some beautiful, evocative photo presets, available in both free and paid versions, makes VSCO Cam an essential app for anyone who takes photos on an iPhone. It elevates simple snaps to something approaching art, while showcasing the creative potential of Apple devices to all.

Pros: Stunning photo presets; excellent photo editing tools; ability to import images; full-resolution image making and editing; good support

Cons: Some tools are available only on newer iDevices; nine 'Top In-App Purchases' could prove expensive if bought individually over time

Full review: tinyurl.com/mLu542x



Analog Film

ordinaryfactory.wordpress.com, £1.99

It's difficult to determine how authentic Analog Film is in relation to the film stock it claims to recreate digitally, but the results are both attractive and evocative.

Despite the lack of even basic editing tools, we love the choice of black-and-white effects, which can add style and substance to even the most casual of snaps.

Pros: Around 250 film stock presets produces subtle yet varied film-like results; plenty of black-and-white variations; simple user interface; compatible with older iOS devices

Cons: Lacks editing tools, including ability to adjust, crop, straighten images; no frames or borders

Full review: tinyurl.com/ngnymos



Scout Camera

crushapps.com, £1.49

Scout Camera's great strength is to place emphasis on the photographer capturing a moment, not the process of editing images retrospectively using your iPhone or iPad. Although you can combine the app with others to good effect, it still excels as a creative tool that requires little more than a keen eye and steady hand.

Pros: Great range of adjustable colour filters and artistic crops; beautiful, understated user interface; emphasis on capturing the moment not editing images endlessly

Cons: No optional grid lines for ensuring straight photographs; no ability to import existing photos for editing; lacks full range of editing tools; rather modest iOS 7 makeover

Full review: tinyurl.com/n6Ltopk



Perfect B&W

ononesoftware.com, £1.49

There are plenty of photo manipulation apps on the market, but for getting arty with monochrome images, especially with one-click looks, this one is great. Precision tools among the Options would be interesting, but at this price it's hard to compare the app with more powerful features present in desktop image-editing software.

Pros: Instant preset artistic looks; takes full advantage of iOS camera; integration with social media; compositional aids; non-destructive workflow; inexpensive

Cons: Some of the manual adjustment options could be fine-tuned and improved; more border/frame choices would be welcome

Full review: tinyurl.com/nzz24jc





Paperless

crushapps.com, £1.99

Paperless will appeal to those who want to keep track of daily tasks, and anyone who has more long-term goals and even dreams. As Paperless doesn't set date sensitive goals, it's a good way to ensure things get done at your own pace, free of the disappointment of missing deadlines.

Pros: Attractive, productive user interface; wide appeal; good range of features including ability to sync notes via Dropbox; search function; password protection

Cons: Procrastinators may find the lack of set deadlines and alerts frustrating; no desktop version; slightly steeper learning curve than some list-making apps

Full review: tinyurl.com/oLgnzqk



Vesper

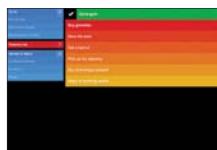
vesperapp.co, £2.49

Vesper shows a lot of potential with a beautiful, aesthetically pleasing user interface that's a pleasure to use. It's a fine example of Apple's iOS 7 radically streamlined redesign, and we only hope new features – synching of notes particularly – are on the developer's to-do list.

Pros: Clean, attractive interface; intuitive design makes for productive note-taking and good navigation; ability to add and adjust text and add photos; shows great potential

Cons: Synching options on the to-do list; no iPad native version; no Mac version; cheaper and free alternatives; a few iOS 7 bugs noted on Twitter

Full review: tinyurl.com/ktkbbdc



Clear+

realmacsoftware.com, £2.99

Embracing Apple's iOS 7 redesign and new features, Clear+ is one to-do list that's done right, leaving no excuses not to start organising your daily tasks. Beautifully considered, Realmac Software have crafted an app that's intuitive to use and has real longevity, one that best showcases Apple's recent focus on simplicity of design.

Pros: Potential to speed productivity and organise daily tasks; now with iOS 7 tweaks and enhancements; attractive, intuitive interface; modest learning curve

Cons: No Reminders as yet; not a radical overhaul of the previous Clear app; iOS 7 only update; some features are iPad only; interface may look like a Windows phone app

Full review: tinyurl.com/L4twwm8



Day One

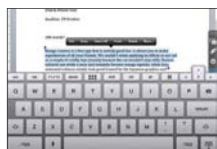
dayoneapp.com, £6.99

With Day One, the filters are off. Free of the Facebook effect, your life and thoughts become your own. There are no work colleagues to fear offending, no friends who'll feel left out. It's a diary for the social-media age that you don't need to share.

Pros: Integrates with iOS version; markdown support; calendar-based input

Cons: No local encryption; only one image per entry

Full review: tinyurl.com/ggtjm44



Parallels Access

parallels.com/uk, £54 per machine, per year

It's a shame that a truly innovative piece of software that shows real transformative potential is so expensive. Compared to its free rivals, Parallels Access is the clear winner on feature count, and its ability to rejig a desktop display on to an iPad's screen is second-to-none, but at £54 per machine per year it's more than we'd pay.

Pros: Application process is fantastic; makes Mac remote desktop much easier to use

Cons: Too expensive; replaces a similar but cheaper app; currently works only on iPad

Full review: tinyurl.com/p68ebm2



Facebook

facebook.com, free

On the whole Facebook 8.0 for iPad and iPhone is an improvement over the previous version. It's a slick and clean app that's easy to use, and with it installed you may hardly ever use the Facebook website again. We're also glad to see that Facebook improve matters with a slew of speed enhancements and bug fixes.

Pros: Clean interface; ability to limit sharing to select audiences; good integration with iOS

Cons: No easy way to just view stories from Friends; not so easy to manage friends lists; no trending or detailed information

Full review: tinyurl.com/Lyn5xLL



TuneIn Radio Pro

tunein.com, 69p

The addition of ads on what's billed as a pro app aside, TuneIn Radio Pro is still an excellent choice for enjoying radio from the UK and anywhere in the world. The ability to catch up with on-demand podcasts and record content for offline playback is a bonus, which only enhances an already great listening experience.

Pros: Impressive choice of content from around the world; ability to catch up with podcasts; record function; option to save favourite channels

Cons: Recent addition of ads on TuneIn Radio Pro; broadcasters restrict some content due to regional rights; similar TuneIn Radio is free

Full review: tinyurl.com/LLuLqo5



Flipboard

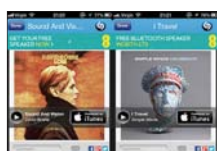
flipboard.com, free

Flipboard is a must-have app, more so with the introduction of iOS 7, one that showcases Apple's invention to great effect, while maintaining a lead over similar social-news aggregators. Beautifully tactile and responsive, it makes reading anything on your iDevice an absolute pleasure.

Pros: Attractive, clean user-friendly design; good range of pre-defined news categories; ability to customise news and sources to suit own interests

Cons: Some new features are iOS 7-specific; minor bugs reported

Full review: tinyurl.com/Lb3qg83



Shazam

shazam.com, free

For music fans, Shazam is an essential app, one that should also appeal to casual users who simply want to identify a song from an ad or drama. Its ability to identify even the most obscure tracks is very impressive.

Pros: Excellent hit rate identifying tracks; improved user interface; good iTunes and YouTube integration; ability to share track information via Facebook and Twitter

Cons: Auto Tagging currently iPad only; mainstream tracks dominate music discovery extras in Shazam Pulse and interactive maps

Full review: tinyurl.com/ndbht56



Yahoo Weather

uk.yahoo.com, free

Yahoo Weather stands out thanks to accurate forecasts, good balance of information and an attractive yet simple design. The addition of Flickr photos reflecting different times of the day from across the world, is both a worthy addition and a distraction on days when you wouldn't want to go out unless you had to.

Pros: Accurate forecasts; attractive design; cool use of Flickr/Project Weather photos; ability to save locations to favourites; interactive radar, satellite, heat, and wind maps

Cons: No Notification Centre integration or weather alerts; Ultraviolet information is available only in select countries

Full review: tinyurl.com/qemq7zn



Buyers' Guide

SPEAKERS



Simple Audio Listen

Full review: tinyurl.com/pompxbn



www.simpleaudio.com, £399

A price tag of £399 is pretty steep for a set of speakers that will just sit on a desk with your computer. However, we were impressed by the sound quality, and they will earn their keep if you use your Mac and Windows PC as your main music system at home.

Pros: Compact design; impressive sound quality with firm bass; Bluetooth option for mobile devices

Cons: Expensive; no equaliser controls



Maxell MXSP-BT3100

Full review: tinyurl.com/Lf4y4he



uk.maxell.eu/en/, £170

The Maxell MXSP-BT3100 is around half the price of the similarly specified competition, which makes it look better value. But £170 is still no small outlay and we'd expect better quality and a less plasticky or spitty sound for the money. Against some higher-priced wireless speakers we've reviewed, it doesn't look such bad value.

Pros: Relatively intelligible voice reproduction; extended and harmonious treble compared to much competition

Cons: Plasticky coloration; squawks at higher volumes; no aptX capability



Edifier Luna Eclipse

Full review: tinyurl.com/onbz63n



edifier-international.com, £150

Fabulous styling goes some way to endear these speakers, and some clever electro-acoustic tricks help move the sound upscale for their size. Ultimately, the speakers proved just too wearing on the ears, brought down by low-grade amplifiers and a third-rate Bluetooth audio codec.

Pros: Sleek; modern styling; discreet; spacious sound; active crossovers

Cons: Edgy; brittle sound at times; lacking in musical naturalness



Bayan Audio Soundbook X3

Full review: tinyurl.com/oevqdp7



bayanaudio.com, £250

This is a smart and well-made compact Bluetooth speaker, with the added benefit of an easy-tune FM radio. While competent for quieter or muffled background kitchen chat radio, it lacks any subtlety when in its full-volume element. It may have some style and convenience, but it's overpriced.

Pros: Clever industrial design like an opening book; neat style

Cons: Muffled indistinct sound; no high-frequency presence; tune-free bass



Audio Pro Addon T10

Full review: tinyurl.com/qbnzny6



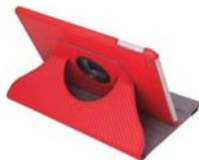
audiopro.com, £300

The Audio Pro Addon T10 can appeal with its retro square box, and its decent build quality, plus enormous potential for sheer volume that helps to justify the high price. Overall, though, it failed to inspire thanks to a flat, monotonic sound and lower mid-range.

Pros: Loud and full of bass

Cons: Little subtlety; expensive for available sound quality

IOS ACCESSORIES



Everything Tablet 360° Rotating Case

Full review: tinyurl.com/ntzoo6w



everythingtablet.co.uk, £29

Everything Tablet's 360° Rotating Case is a highly protective yet lightweight accessory for the iPad Air, and its stand (provided you avoid the rear-most slot in portrait mode) is stable and versatile. The price is okay, too. There are three colours to choose from: cherry red, orange and black.

Pros: Protective; lightweight; clever stand function

Cons: Stand becomes unstable in certain slots in portrait mode



Covert Slim Folio Case

Full review: tinyurl.com/n7m89k3



covertaccessories.com, £19

The Slim Folio iPhone 5s case is great value and packs in a lot of useful features without it feeling like overkill. Due to the vibrant and limited colour options, though, it would likely fare best with a younger audience.

Pros: Affordable; stylish; viewing stand; credit card holder

Cons: Card holder is a bit tight; no neutral colour options



Kensington KeyFolio Pro

Full review: tinyurl.com/oc522pm



kensington.com, £99

The KeyFolio Pro keyboard hits a sweet spot of functionality and weight. We're particularly keen on the removable keyboard that enables the case to function without its additional weight. This works extremely well.

Pros: High quality professional-style case; detachable keyboard; thin and light keyboard with raised chiclet-style keys; keyboard has Function keys; magnetic clasp stand

Cons: Enclosed case for iPad; at £99 it is bulky with the keyboard included; doesn't function well when on your lap



Kensington KeyCover Plus

Full review: tinyurl.com/md57p3h



kensington.com, From £99

We liked the Kensington KeyCover for iPad Air. It's a lightweight keyboard cover for the iPad Air with a solidly backlit keyboard. We have reservations about the battery life of the device, and you'll need to be careful to keep the backlit keyboard off, and turn off the device when not in use. But it's a small, light and functional option.

Pros: Sturdy protective case; solid plastic keys; easy to type on; good Function keys; backlit key feature

Cons: iPad Air clips in only face down; backlit keys can drain battery



Kujali case for iPad mini

Full review: tinyurl.com/ompg9tv



kujali.com, £29

The Kujali iPad mini case is an all-around winner. It's durable, sleek, functional and affordable. We're excited to see what other tech accessories the Kujali brand will offer in the future.

Pros: Attractive; sturdy; extra protective skin; lifetime warranty

Cons: Just one colour option



**AKG K311**

uk.akg.com, £15

At £15, it's hard to be too unkind to the AKG K311. They're not the best set of earphones we've heard, though they're not the worst either. And at this price they're the cheapest we've come across for a long time. We'd probably suggest going up to the Apple EarPods at £25, but for £15 this is a good set of headphones.

Pros: Extremely cheap; comfortable; sturdy

Cons: Sound quality is markedly average; no iPhone controls

Full review: tinyurl.com/n3cjhij**Klipsch Image X10i**

klipsch.com, £249

Klipsch's Image X10i in-ear headphones come with a two-year warranty, which is reassuring when you are spending a whopping £249. But, if you have that sort of money to spend, and you're looking for a good, comfortable pair of in-ear headphones – without caring so much about making calls – then these are a great buy.

Pros: Incredibly comfortable; light; good acoustic seal; really clear sound reproduction; you can find them for under £100 on Amazon

Cons: Bling; not great for phone calls

Full review: tinyurl.com/qzrfmh3**Nocs NS600 Crush**

eu.nocs.se, £149

If you're into dance and electronic music, then these headphones deliver exceptional quality. They're not cheap, though, and if you have a wider taste in music you should probably go for something a little more accurate.

Pros: Powerful bass; stylish design; Kevlar-coated wire; great for dance fans

Cons: Mid-range isn't so hot for traditional rock music

Full review: tinyurl.com/mztrp96**Plantronics Backbeat 903+**

plantronics.com/uk, £50

It can be a bit tricky getting the darn things hooked over your ears, but the light, rugged design of the Backbeats make them a good choice when you're exercising at the gym or out running in the park. The audio quality is also very good, considering the current low price.

Pros: Affordable; lightweight; good sound quality

Cons: Can be fiddly hooking them over your ears; the maximum volume level isn't very high

Full review: tinyurl.com/pkdayrx**Altec Lansing Muzx Ultra mXx606**

alteclansing.com, £80

These in-ears have a smart-looking remote on the cable and excellent overall sound quality. The sound is rich and warm, with good breadth across the spectrum; the bass feels punchy without overshadowing any of the upper notes.

Pros: Interesting designs; fantastic sound quality across a wide spectrum of musical styles

Cons: Slight artificial feel to some guitar music

Full review: tinyurl.com/nr8tra4**Turtle Beach i60**

turtlebeach.com, £349

The asking price seems a bit high and puts these in the same league as Bose and Sennheiser. We'd also expect noise cancellation for this kind of money, but the surround sound quality is superior, and as a result, we suspect that it would take a lot of external noise to distract you.

Pros: Great selection of audio presets available via iOS app; use Bluetooth and Wi-Fi at the same time

Cons: No noise cancellation; audio levels aren't uniform; high price

Full review: tinyurl.com/qawoz9L**Logitech UE 6000**

logitech.com/en-gb, £169

We like these headphones a lot. They combine stunning bass and superb treble audio with nice styling, and the active noise cancellation technology makes them ideal for long journeys. They come with a padded carry case, an audio splitter and a replaceable audio cable, too.

Pros: Amazing bass and treble audio; iPhone controls; separate earphone cable; noise-cancellation technology

Cons: Heavy weight; audio not great for rock and vocal music

Full review: tinyurl.com/pLfV8bh**The House of Marley Buffalo Soldier**

thehouseofmarley.co.uk, £79

The Buffalo Soldier headphones are a decent pair of on-ears with good environmental credentials. The audio is on a par with other headphones at this price point, but we were impressed with the fit and finish.

Pros: Great build quality; good audio; solid environmental credentials; it's nice to have tech products made from wood

Cons: The whole Bob Marley branding thing seems a bit strange

Full review: tinyurl.com/L7r9dzy**Logitech UE 9000**

logitech.com/en-gb, £299

The high price of the Logitech UE 9000 is what's stopping us recommending them outright. If you can find them at a discount in the sub-£200 price range, we'd give them serious consideration for the convenience of the combination of Bluetooth and high-capacity internal battery.

Pros: Very well constructed; plenty of detail across all frequencies

Cons: Mediocre active noise cancelling; minimal headband padding; high price

Full review: tinyurl.com/odr6b4b**Jabra Revo**

jabra.co.uk, £187

Although the Jabra Revo wireless headphones are not exactly cheap, they warrant their price tag thanks to the good looks, features, comfort, durability, wireless performance and overall sound quality. These are a very solid pair of headphones.

Pros: Stylish appearance; comfortable; durable; impressive audio performance; good battery life; NFC pairing available; touch control panel

Cons: Not cheap

Full review: tinyurl.com/nzfghmh



Canon EOS 1200D

canon.co.uk; £349 (body only), £399 (18-55mm lens)

While the 18Mp EOS 1200D might not offer all the bells and whistles of models higher up the range, such as a tilting and swivelling LCD screen, it's possible to get professional-looking results. As such this is a very affordable route to getting sharper, more obviously 'pro' pictures from the get go.

Pros: Affordable; well built; professional-looking results; easy to operate

Cons: Fixed LCD screen; no built-in wireless connectivity; maximum capture speed is modest

Full review: tinyurl.com/oy6m7Ly



Sony Cyber-shot DSC-RX10

sony.co.uk; £1,049

Resembling a cross between a digital SLR and a Howitzer cannon, the Sony Cyber-shot RX10 looks like a serious contender for serious photography, although it isn't an inexpensive option, when you add up what a semi-pro DSLR body and a similar zoom would cost, investing in this makes for a sound investment.

Pros: Solid magnesium alloy build; tilting LCD and eye-level viewfinder; impressive zoom; knockout image quality

Cons: High price may limit appeal; big lens means bulky body

Full review: tinyurl.com/obaywbj



Nikon 5300

nikon.co.uk; £829

For a beginner's camera, the D5300's layout is as busy as a photo enthusiast would want, while it's as speedy to get up and running from cold as we'd expect from a DSLR in this price bracket. More importantly, it's capable of capturing an impressive degree of detail.

Pros: Excellent image quality; tilting LCD screen; built-in digital effects; easy-to-navigate user interface

Cons: Glossy body cheapens look; pricey

Full review: tinyurl.com/kbb342p



Pentax K-3

pentax.co.uk; £1,199 (18-55mm lens)

Providing excellent rendition of colours and sharp images, the Pentax K-3 offers slightly more bang for your buck than the Nikon D5300. If you need a lens, the 18-55mm zoom kit is the best bet at £1,199.

Pros: Solid feel; professional-grade body; in-body image stabilisation; switch on or off anti-aliasing filter

Cons: No Wi-Fi connectivity; blocky design

Full review: tinyurl.com/q8tq23e



Nikon D610

nikon.co.uk; £2,299 (24-85mm lens)

Nikon's DSLR comes across as a subtle update of the previous D600 rather than major overhaul. Like its predecessor, the D610 is an affordable route into full-frame photography for anyone wedded to the Nikon brand. You can't fault the images, so this is a purchase where the head wins out over the heart.

Pros: Large full-frame sensor; waterproofed body; workhorse-like build; swift response times; large and bright optical viewfinder

Cons: No integrated Wi-Fi; expensive if you don't need full-frame DSLR; chunky and bulky

Full review: tinyurl.com/qcczouz



Sony A58

sony.co.uk; £419 (18-55mm lens)

Sharp and well-saturated images from the camera, as well as ultra-smooth video clips, confirm this cheaper-than-average model as a jack of all trades. So if you don't mind an electronic viewfinder as opposed to the traditional optical version supplied by a regular DSLR, the Sony A58 can be considered a steal.

Pros: Well saturated colours and warm feel to images; rear LCD can be tilted up or down; DSLR-style handling yet quicker to get video recording up and running

Cons: The rear LCD screen is smaller than most rivals (even if it can be tilted)

Full review: tinyurl.com/ouje6wb



Pentax K-50

pentax.co.uk; £599 (18-55mm lens)

The Pentax K-50 is so nearly a great camera, but a slightly bland design and lack of adjustable LCD when used as viewfinder let it down. However, if you plan on using this camera in the rain and snow, the semi-pro level of ruggedness makes for a worthy investment.

Pros: Camera body and supplied lens are both weatherproofed, while internal sensor shift shake reduction mechanism means specially image stabilised lenses are not required

Cons: Body design reflects price in being chunky with big buttons and relatively frill free; LCD is fixed rather than angle adjustable

Full review: tinyurl.com/pf5xgkn



Sony DSC-RX1R

sony.co.uk; £2,599 (35mm lens)

Thanks to a lens aperture range from f/2.0 to f/22 plus a focal distance up to infinity, it's a jack-of-all-trades device, providing lovely shallow-depth-of-field results where a subject's sharp but the background's attractively soft. Superb it may be, but whether the RX1R is worth it depends on the application to which you may wish to put it.

Pros: High-resolution full-frame sensor in a small-ish camera package; high-quality bright aperture lens; built-to-last metal construction suggests a device fashioned for war

Cons: Hard to justify on price alone; no viewfinder built in (accessory viewfinder is pricey, too); short-ish battery life of 200 plus shots

Full review: tinyurl.com/ma6sqxs



Alpha A580

Sony, www.sony.co.uk; £569 (body only) or £649 (including 18-55mm lens)

The A580 has many of the same core features as the smaller A55 for £100 less – including a top whack light sensitivity setting of ISO 12800, although shooting video isn't quite as fluid or intuitive.

Pros: A cheaper alternative to the A55 with identical resolution and many of the same core technologies

Cons: Chunky build

Full review: tinyurl.com/ndf7qok



Nikon D7100

nikon.co.uk; £1,099

The Nikon D7100 is a new range-topping 24Mp APS-C sensor DSLR for aspirational amateurs. It's a respectable showing, although if extras such as weatherproofing aren't required there are cheaper alternatives delivering a very similar still image quality.

Pros: Weather resistant; high-res backplate LCD; high res sensor; top plate LCD window as shortcut to key settings; compatible with over 60 Nikon lenses; 51 selectable AF points

Cons: Basic image quality no better than most DSLRs costing £500+; non-angle adjustable LCD; common image artefacts such as pixel fringing still present

Full review: tinyurl.com/o57zqlr





Fujifilm FinePix S9400W

Full review: tinyurl.com/o423c5w

★★★★☆

fujifilm.eu/uk, £269

While the S9400W may not excel, it's one of the very best options out there in terms of zoom range, build and handling within its lower-priced section of the market, which is why we're happy to give it an above average score.

Pros: Big zoom power offers a wealth of framing opportunities; affordable; good build and handling; manual features alongside the fully automatic

Cons: Small-ish sensor; no rechargeable Lithium-ion battery supplied with this model, small and pokey viewfinder; fixed LCD screen; results no match for the DSLR it resembles



Fujifilm X-E2

Full review: tinyurl.com/k89vwdc

★★★★★

fujifilm.eu/uk, £1,149 (18-55mm lens)

Improvements over the earlier X-E1 (tinyurl.com/Lk8j3qy) seem to be largely performance based, and come down to enhanced speed and accuracy.

That said, if you're considering spending this amount, then we'd also recommend taking a look at Fujifilm's X-T1 (tinyurl.com/ogstmv6).

Pros: Semi-professional compact system camera with an eye-level viewfinder; rangefinder-like controls; build quality is reminiscent of an even pricier Leica camera

Cons: Pricey if you don't need an eye-level viewfinder; other CSCs are more intuitive to use

Macworld
EDITORS' CHOICE



Fujifilm X-A1

Full review: tinyurl.com/Lej65yq

★★★★☆

fujifilm.eu/uk, £359 (16-50mm lens)

The X-A1 is Fujifilm's handsome-looking entry-level interchangeable lens X-series compact, a range noted for reviving the critical fortunes of the brand with its classic styling and a feature set more geared to enthusiasts and professionals than the happy-snappy brigade.

Pros: Premium look and feel; swift and accurate autofocus; plenty of effects and Fujifilm's Film Simulation modes provide a point of difference; tilting LCD

Cons: A larger handgrip would have been useful; longer zooms in danger of making the camera feel a tad 'front heavy'; no built-in eye-level viewfinder



Sony A5000

Full review: tinyurl.com/kysrxfy

★★★★☆

sony.co.uk, £419 (16-50mm lens)

It might not look the flashiest on test, but the stripped back Sony A5000 is one of the easiest and most accessible routes to achieving more professional-looking shots for anyone upgrading from a smartphone. It's affordable, too.

Pros: Large 20.1Mp resolution from an equally big APS-C sensor results in detailed shots; tilting LCD screen; built-in flash; fairly priced kit with Power Zoom

Cons: No viewfinder or hotshoe



Panasonic Lumix DMC-GM1

Full review: tinyurl.com/m3jupwp

★★★★☆

panasonic.co.uk, £569 (12-32mm lens)

Pocket-sized if you remove the lens, the GM1 maintains a premium feel thanks to a lightweight yet sturdy aluminium frame and a DSLR-like magnesium-alloy finish. Images are surprisingly detailed, while colours straight out of the camera are engagingly warm.

Pros: Playing card dimensions; sturdy DSLR-strength build provides a premium feel; size hasn't unduly affected handling and the images are a knockout

Cons: So-so battery life; touch-sensitive onscreen icons are small, as are the hard keys on the backplate; lacks an eye-level viewfinder



Olympus OM-D E-M10

Full review: tinyurl.com/ko3dpng

★★★★☆

olympus.co.uk, £699 (14-42mm lens)

Offering 16Mp stills and full-HD video in one compelling package, the Olympus E-M10 is the retro-styled camera for photo enthusiasts who couldn't justify spending a 'grand on previous OM-D E-M1 models (see below).

Pros: Classic design provides a premium feel; pop-up flash and Wi-Fi connectivity; tilting LCD screen with high resolution; 1.4-million-dot eye-level finder

Cons: Smaller sensor size than other big-name rivals; nose butts up against LCD screen when using eye-level viewfinder



Canon PowerShot S120

Full review: tinyurl.com/p56qdlc

★★★★☆

canon.co.uk, £449

If you're looking for compact that will ape a digital SLR's quality without sacrificing portability, then the PowerShot S120 is a good choice. Despite its pocket size and slender proportions, it's solidly built. It's also easy to use and the images it produces are rich.

Pros: Solid feel; high-quality construction; touchscreen control; customisable lens ring function will appeal to those who love getting hands-on with camera operation

Cons: For the money, you could buy a cheap DSLR; lacks a handgrip; omits an eye-level viewfinder



Olympus OM-D E-M1

Full review: tinyurl.com/k3e4u6v

★★★★☆

olympus.co.uk, £1,299 (12-50mm lens)

Despite a few reservations, the OM-D E-M1 is right up there at the pinnacle of what a compact interchangeable-lens camera can achieve. For most of us, in comparison with a DSLR, the image and build quality will be more than good enough to prompt a possible switch of allegiance.

Pros: Solid build quality; dust- and waterproofed; in-body image stabilisation; decent image quality

Cons: Small image sensor; buttons feel squashed in



Canon PowerShot G16

Full review: tinyurl.com/oz6ddq8

★★★★☆

canon.co.uk, £529

Aside from the rock-solid build quality and DSLR-feature set, the pictures are also worth treasuring, with colours beautifully realistic and detail pin-sharp. If you stick under ISO 6400 to avoid an obvious deterioration of fine detail, you'll find this compact hard to beat

Pros: High-end premium shooter; solid set of features; impressive pictures

Cons: Missing tilting rear LCD panel; price a little on the high side



Samsung NX2000

Full review: tinyurl.com/qaqz27b

★★★★★

samsung.com/uk, £499 (20-50mm lens)

More evolution than revolution, the NX2000 should prove popular with photographers on a budget, who want a better quality of camera for those special occasions, but not the added bulk of a DSLR and larger lenses. For those who already own Galaxy phones and tablets, navigating its menus and icons will feel familiar.

Pros: Good value; large touchscreen; sharply detailed and colour-rich images straight out of the camera with minimal effort; increased connectivity options

Cons: If you do need to remove the media card it's a pain, as the NX2000 has opted for the small and fiddly fingernail-sized microSD; no onboard flash or eye-level viewfinder

Macworld
EDITORS' CHOICE

Buyers' Guide

MONITORS



AOC Q2770PQU

aoc-europe.com/en, £420

AOC's latest professional display may not be packaged in the finest of chassis, but the Q2770PQU is a high-quality model that's well suited for use with a Mac. It's also the finest quality panel we've tested at this price.

Pros: High 2560x1440 resolution; superb image quality; telescopic, rotating stand; low power consumption

Cons: Bland styling

Full review: tinyurl.com/Lkcejxc

★★★★★

Macworld
EDITORS' CHOICE



NEC MultiSync E243WMI

necdisplay.com, £200

The NEC MultiSync E243WMI could prove ideal as a high-quality monitor that you can run all day without adding much to your electricity bills. Specified at just 13W, this monitor ought to prove cost-effective over time. The display is neat and accurate, well-built and functional.

Pros: Nicely built; fully adjustable stand; excellent overall colour accuracy; well rendered text; good screen uniformity; decent sRGB coverage; Eco modes and low power use

Cons: Menu system poorly implemented; more expensive than budget consumer designs

Full review: tinyurl.com/kncgvou

★★★★☆



Philips 234E5QHAWL

philips.co.uk, £130

The Philips 234E5QHAW is a good-value IPS panel at the popular 23in size. It should have reasonable luminance consistency and good colour coverage and accuracy. There's some penny-pinching on the frame and the stand is weak, but this monitor offers good quality and modestly stylish looks.

Pros: Cheap; AH-IPS; good-quality display; great viewing angles; easy-to-use menu controls; nice looks; HDMI and MHL connectivity; speakers; ultra-thin bezel

Cons: Not 100 percent sRGB coverage; poor stand; average build quality average; not a lot of interfaces

Full review: tinyurl.com/o2ggvr8

★★★★☆



AOC i2769Vm

aoc-europe.com/en, £200

While the build quality is average, reflecting where the costs have been saved, it's not bad to look at and, while it wouldn't take a lot of punishment, it isn't particularly flimsy. Throw in the excellent colour uniformity and consistency, and you have a decent, large-screen, budget 27in IPS option.

Pros: Large screen for £200; IPS panel; wide viewing angles; good colour consistency; configuration options

Cons: Mediocre build quality; awkward menu system; more luminance variation than most IPS panels

Full review: tinyurl.com/Ldtanwc

★★★★☆



Samsung S24C650PL

samsung.com/uk, £170

Although Samsung's bland-looking 24in PLS screen offers excellent colour accuracy and consistency, it's let down by light leak and inconsistency in luminosity. For general use, the viewing angles make it a good screen to demonstrate ideas to a group, but for designers and photographer there are better options.

Pros: Very good colour consistency and accuracy; 5ms refresh rate; telescopic stand; rotates and swivels; USB hub in base

Cons: Light leak all along the bottom of the screen; awful luminance consistency; bland looks; not 100 percent sRGB; weak and tinny speakers

Full review: tinyurl.com/pkLazjr

★★★★☆



NEC MultiSync EA273WMI

nec-display-solutions.co.uk, £285

The relatively low resolution for the size and the mid-range price tag mark it out as a solid performer. For standard office duties where the power-saving features can come into play, it's a decent quality display that will serve well.

Pros: Good viewing angles; excellent colour uniformity; plenty of contrast; solid build quality; display rotates; eco power saving features; lots of interfaces

Cons: Middle of display brighter than everywhere else; boxy design; relatively low resolution for the size; impossible to see menu controls in dark rooms

Full review: tinyurl.com/n6yahxr

★★★★☆



Asus PQ321QE

asus.com/uk, £2,999

Amazing detail on the screen makes it ideal for all manner of applications where you need detail rather than speed. The quality of the screen is commendable making this a great purchase for those editing 4K video or needing as much detail as possible.

Pros: Fantastic resolution delivers incredible detail; excellent colour accuracy; puts out a large amount of light; good contrast; stand swivels; monitor tilts

Cons: Expensive; requires high-end graphics to produce 60Hz mode; only a single DisplayPort interface; colour gamut is some way off sRGB

Full review: tinyurl.com/k2rLs8a

★★★★☆



Samsung S27B971D

samsung.com/uk, £850

Although the price is a little high, you can't argue with the build quality or colour consistency and accuracy as these are excellent. For photographers and designers who want something stylish and don't mind paying for it, there's lots of screen space to enjoy.

Pros: Great build quality; stylish looks; touch-sensitive menu controls; high 2560x1440 resolution; lots of screen space at 27in; bundled leads; excellent colour accuracy

Cons: Expensive; contrast and brightness aren't anything to write home about; stand doesn't offer much flexibility

Full review: tinyurl.com/pwc4yph

★★★★☆



Hanns.G HW246HBB

www.hannsg.com/eu/en, £117

For general Mac use, this is a good purchase, offering stylish looks, lots of screen space and good contrast ratio. The colour uniformity and accuracy are both commendable and only the lack of complete sRGB coverage and the uneven luminosity are drawbacks. Otherwise, this is a lightweight and well priced panel.

Pros: Lightweight; plenty of screen space; stylish two-tone looks; good value; great colour accuracy and good uniformity; plenty of contrast

Cons: Stand is fairly insubstantial; average brightness; two areas of wildly differing brightness; limited interfaces; mediocre sRGB coverage

Full review: tinyurl.com/Lrt48o3

★★★★★

Macworld
EDITORS' CHOICE



BenQ GW2760HS

benq.co.uk, £210

This is a superb monitor to choose to go with a Mac mini or as an external display for your MacBook Air or MacBook Pro. At around £200, it offers premium quality and high performance at a price normally associated with a much lower-quality display.

Pros: Large 27in display; flicker-free technology; non-glossy AG matte coating; fantastic colour gamut range; unobtrusive bezel; amazingly low price

Cons: Resolution not as high as Apple Cinema Display; colour accuracy isn't as good as a high-end monitor

Full review: tinyurl.com/nf3wvfj

★★★★★

Macworld
EDITORS' CHOICE



iFi nano iDSD

ifi-audio.com, £165

The iFi nano iDSD serves as a great upgrade to the headphone sound of MacBooks, iPhones and iPads. It's superbly made and brings a major upgrade to CD-level sound, as well as open up the many possibilities for real high-resolution music that are now available from computers and mobile devices.

Pros: High-resolution audio playback; relatively low cost; great build quality

Cons: A zipping noise is just audible when changing volume while music is playing

Full review: tinyurl.com/nfrwsgd

★★★★★

Macworld
EDITORS' CHOICE



Elgato Thunderbolt Dock

elgato.com/uk, £189

We've tried all four of the Thunderbolt docks currently available on the market, and found that Elgato's just nudges ahead in build quality and style. And while it seems to be based on exactly the same reference design used by CalDigit and StarTech, Elgato's offering lets you charge your iPad.

Pros: Three USB 3.0 ports; gigabit ethernet and HDMI 1.4 available for any Mac with Thunderbolt; added iPad charge capability with software kext

Cons: Limited audio quality; no FireWire

Full review: tinyurl.com/qzjufge

★★★★☆

Asus USB-AC56

asus.com/uk, £60

The Asus USB-AC56 is an effective upgrade that can bring faster wireless networking to your Mac. You'll need a USB 3.0 port for best results, but under the right conditions you may get close to half-gigabit wireless transfers at short range, and the benefit of increased performance at longer ranges, too.

Pros: Upgrades Wi-Fi to 11ac; fast real-world speed; increased range

Cons: Bulky add-on; rudimentary software

Full review: tinyurl.com/o98xwd6

★★★★★

Macworld
EDITORS' CHOICE



StarTech Thunderbolt Station

uk.startech.com, £230

If you need to expand your port count or just make it quicker and easier to interface a MacBook with your home/office setup each day, then the StarTech Thunderbolt Station will serve you well.

Pros: HDMI output; three USB 3.0; relatively inexpensive; cable included

Cons: HDMI limited to full-HD; USB 3.0 working slowly; won't charge iPad

Full review: tinyurl.com/o98xwd6

★★★★☆



View Quest Hepburn

viewquest.co.uk, £149

Overall, we'd suggest that the View Quest Hepburn speaker is ideal for anyone with a love of vintage or retro-style, as it'll sit nicely in a living room or kitchen and provide satisfactory sound that will suit a dinner party, barbeque or general background music for a day bustling around the house.

Pros: Gorgeous vintage design with multiple colour options; Bluetooth speaker & DAB radio combination; easy to use and simple setup

Cons: Some distortion at highest volume; no rechargeable battery; high price tag considering the sound quality

Full review: tinyurl.com/ku9bvnw

★★★★☆



Pure Evoke D2

pure.com, £99

The Pure Evoke D2 packs great audio quality for the size. The combination of digital radio and Bluetooth ensure it has a lot of functions. Its small stature will keep it from being your main speaker, but it makes a great digital radio with iPhone or iPad connectivity for the kitchen or bedroom. It offers a lot of functionality for the price.

Pros: Small footprint; good audio clarity; Bluetooth connection; easy to set up

Cons: Separate Pure ChargePAK required to use portable battery; small size limits volume

Full review: tinyurl.com/ohnrvoa

★★★★☆



CalDigit Thunderbolt Station

caldigit.com, £179

The CalDigit Thunderbolt station is a useful addition for anyone who needs up to three USB 3.0 ports, or a quick way to connect all their peripherals. Improved audio quality and consistent HDMI operation would make this product stand out from the crowd.

Pros: USB 3.0; gigabit ethernet and HDMI 1.4 available to any Mac with Thunderbolt; convenient

Cons: Poor audio quality; erratic HDMI issues; no FireWire; low bus power on USB ports

Full review: tinyurl.com/kdhyLdn

★★★★★

Macworld
EDITORS' CHOICE



Elgato EyeTV Netstream 4Sat

elgato.com/uk, £259

If you have a satellite dish, or can accommodate one and wish to dovetail your media with your computer network, then Elgato's Netstream 4Sat is a delight. Performance, styling and build quality are first-class, and being able to record four different HDTV channels is worth every penny of the asking price.

Pros: Four satellite tuners in one box; great build quality; smart software

Cons: Cumbersome channel editing for iPhone/iPad; unable to update firmware on a Mac

Full review: tinyurl.com/qemoawc

★★★★★

Macworld
EDITORS' CHOICE



IK Multimedia iRig Pro

ikmultimedia.com, £120

As an all-in-one unit for connecting your live instruments to a DAW, the iRig Pro is very easy to recommend. IK Multimedia has thought carefully about the needs of musicians and built something simple to use that produces great results. It might be small in size, but it packs a seriously impressive punch.

Pros: Easy to use; no discernible latency; excellent sound quality

Cons: Gain dial is a little fiddly to adjust; no headphone out

Full review: tinyurl.com/nu4dx6w

★★★★☆



Focusrite iTrack Solo

uk.focusrite.com, £129

In essence, the iTrack Solo does the one thing you ask of any recording device, it simply gets out of the way and lets you make music without any fuss. Focusrite also includes a code for its Scarlett plug-in suite and Ableton Live Lite 8 in the box, which makes an already excellent package even better value for money.

Pros: Excellent audio quality and a simple setup with the iPad

Cons: The Device Link cable feels frail and awkwardly short

Full review: tinyurl.com/ozfszdx

★★★★☆



Buyers' Guide

LASER PRINTERS



HP Colour LaserJet Pro M177fw

Full review: tinyurl.com/Lzzgbpf



hp.com/uk, £274

The £274 price tag represents good value for money, as the LaserJet Pro provides excellent print quality and useful connectivity features. However, running costs for both colour- and mono printing are above average, which means that it can be recommended only for small businesses that need laser-quality on an occasional basis.

Pros: Excellent print quality; ethernet; Wi-Fi and AirPrint connectivity

Cons: Slow colour printing; very expensive toner cartridges



Samsung M2070W

Full review: tinyurl.com/nnhmt6k



samsung.com/uk, £129

The M2070W is a neatly designed and versatile laser printer that will appeal to home workers or small businesses that need a fast, high-quality mono printer for letters and other business documents. However, the relatively low capacity of Samsung's toner cartridges means that running costs are above average.

Pros: Initial purchase price; built-in Wi-Fi; iOS app for Apple mobile devices

Cons: Expensive toner cartridges; no ethernet or automatic duplex printing



Dell C1765nf

Full review: tinyurl.com/no2evbb



dell.co.uk, £189

It's not often that we recommend Dell hardware to our readers. However, there aren't many colour laser printers available for £200 or less, so the Dell C1765nf is a good option for home workers or small businesses that need an affordable workhorse printer.

Pros: Fast, affordable laser printer; 30,000ppm duty cycle; iOS and Android apps; USB and ethernet

Cons: No Wi-Fi; modest capacity; colour printing is expensive



Epson AcuLaser C3900DN

Full review: tinyurl.com/L8Lxjk7



epson.co.uk, £400

It might be overkill for many small businesses – especially the self-employed people who work from home – but the C3900DN will earn its keep if you need a fast printer that can handle fairly high volumes of work with competitive running costs.

Pros: Fast; good print colour for mono and colour; competitive running costs

Cons: Initial purchase price of toners is very high



Kyocera FS-C5150DN

Full review: tinyurl.com/mun9sa6



kyocera.co.uk, £240

If you need to print lots of colour documents every day, then the FS-C5150DN may not be fast enough for you. However, its competitive running costs ensure it's still a good choice for any business needing a high-quality printer.

Pros: Low purchase price; competitively priced toner cartridges

Cons: No Wi-Fi or AirPrint; colour printing is relatively slow



INKJET PRINTERS



Canon Pixma iP2850

Full review: tinyurl.com/nwxLw7



canon.co.uk, £40

The low cost of the iP2850 is certainly attractive, so it's bound to appeal to home users and students who need a basic, affordable printer. Print quality is also very good for such a low-cost device, but the high cost of the black ink cartridge outweighs any savings you might make on the printer's initial purchase price.

Pros: Inexpensive to buy; pigmented black ink produces very good mono text

Cons: Black ink cartridges are very expensive; no Wi-Fi; Mac support could be improved



HP OfficeJet 4630

Full review: tinyurl.com/p9hLgme



hp.com/uk, £89

The purchase price of the OfficeJet is hard to beat, especially as it includes two-sided printing, a document feeder and AirPrint connectivity for under £100. Print quality and speeds are also respectable for such an affordable printer. Unfortunately, printing costs are higher than we'd like – especially for mono printing.

Pros: Initial purchase price is very competitive; built-in Wi-Fi and AirPrint; fax and document feeder

Cons: Expensive ink cartridges; no ethernet interface



Epson Expression Home XP-412

Full review: tinyurl.com/n3g7kLq



epson.co.uk, £89

The Expression Home XP-412 could certainly be faster, and lacks a few useful options such as duplex printing. However, it's a compact and affordable printer that provides good quality and reasonable running costs. It's a good option for home users who need to print only occasional documents or photos.

Pros: Affordable inkjet printer; supports Wi-Fi and AirPrint; good text and graphics output

Cons: Slow; no duplex printing



Epson Expression Premium XP-610

Full review: tinyurl.com/kd5mvvq



epson.co.uk, £149

The Expression Premium XP-610 crams a lot into its neat and compact design. Text output is excellent, with smooth, clean text outlines, and the photo-black ink adds contrast to photo output, producing crisp, bold colours. It's fast, too, for such a compact printer, turning out 11ppm for text, and 8ppm for colour.

Pros: Compact and affordable multifunction printer for home users; supports Apple AirPrint; duplex printing and AirPrint for iOS

Cons: No ethernet; modest capacity; cost for text printing is a little high



HP OfficeJet 7610

Full review: tinyurl.com/q96qdkg



hp.com/uk, £200

It's good to see a printer that provides an affordable A3 printing option, and the only real disadvantage with the OfficeJet 7610 is that it's pretty bulky. However, it produces very good results, with bright, strong colours and crisp smooth text that comes close to laser quality.

Pros: Versatile A3/A4 printer; includes scanner, copier and fax; supports Apple AirPrint

Cons: Big and bulky; duplex printing is an optional extra



CalDigit T3

Full review: tinyurl.com/lvrsolq

★★★★☆

caldigit.com; £586, 6TB

The CalDigit T3 is a versatile desktop RAID system that makes good use of original Thunderbolt speeds with its preinstalled hard disks. It offers greater capacity than systems that rely on 2.5in drives, and reasonable value in capacity per pound at under 10p per gigabyte.

Pros: Large capacity from three RAIDed disks; sturdy build; relatively quiet in operation

Cons: Slower at random file access; no data security in RAID 0



LaCie Little Big Disk Thunderbolt 2

Full review: tinyurl.com/kpkzf79

★★★★★

lacie.com/uk; £1,000

It may not be bus-powered, but the cute Little Big Disk 2 can certainly be toted when required. Not only compact and blissfully quiet in use, it's also the fastest storage drive of any persuasion, albeit at the higher price bracket at exactly £1 per gigabyte. But if you need super-speed storage up to 1000GB there's none better.

Pros: Compact; stylish and quiet; supremely quick

Cons: Not cheap at £1/GB; still requires mains power

Macworld
EDITORS' CHOICE



Promise Technology Pegasus2 R6

Full review: tinyurl.com/Ldda3u8

★★★★☆

promise.com £2,499, 18TB

As much as the blistering speed available from a tightly knitted collection of fast hard disks, the Promise Pegasus2 R6 impresses with its cool and confident character. That, and the attention that's gone into support of the whole drive through its advanced management software utility.

Pros: Huge 18TB capacity; SSD-like speeds; comprehensive software management

Cons: Unique capacity/speed combination doesn't come cheap



WD My Passport Pro

Full review: tinyurl.com/ke53fap

★★★★★

wdc.com/en; £239, 2TB; £349, 4TB

Portable drives generally trade performance for portability, but the My Passport manages to provide desktop-levels of performance wrapped up in a portable design. It's also competitively priced when compared with other RAID drives, making it a great choice for professional users who need a fast, portable backup device.

Pros: High-performance and high-capacity; Thunderbolt interface; supports RAID 0; RAID 1; JBOD

Cons: Bigger and heavier than a conventional portable drive; no USB interface

Macworld
EDITORS' CHOICE



Synology DS1513+

Full review: tinyurl.com/qbf3w4y

★★★★★

synology.com; £630

While the new DSM 5.0 software interface falls victim to the opinion-dividing Windows 8 look, the performance and feature set of this Synology NAS drive lift it clear of all competitors. Its performance in serving files is second to none, which lets it earn its keep.

Pros: Fast; easy-to-learn interface

Cons: Windows 8-like software interface; pricey

Macworld
EDITORS' CHOICE



Toshiba STORE.Slim

Full review: tinyurl.com/khqfnqb

★★★★☆

toshiba.co.uk; £65

The Toshiba STORE.Slim for Mac is relatively tough and affordable. It's generously sized internally at 1000GB, while modestly sized externally, taking very little space in your bag or pocket. Performance is as good as any notebook hard disk.

Pros: Large capacity; attractive price; relatively quiet

Cons: Slow



Freecom Mobile Thunderbolt/USB 3.0 Drivemg

Full review: tinyurl.com/nluk7b2

★★★★☆

freecom.com; £179

If you're looking for an unfussy, lightweight portable drive to connect by Thunderbolt or USB 3.0, the Freecom Mobile Drive mg is one smart solution to look out for. It's available in 1TB or 500GB capacities using disk technology and offers a better balance of capacity against price compared to flash drives.

Pros: Slim; lightweight design; relatively tough magnesium construction; high capacities at cheaper prices than flash storage

Cons: Inevitably slower speed than flash; mechanical drives less resilient



Sony HD-SG5

Full review: tinyurl.com/pubdtmf

★★★★☆

sony.co.uk; £75

If performance is your main priority, then there are faster Thunderbolt and SSD drives. However, the slimline design of the SG5 is both attractive and practical, and it'll be a particularly good choice for owners of the MacBook Air who want a portable backup drive that they can carry around with them.

Pros: Slimline design; weighs just 130g; USB 3.0

Cons: Modest performance; no Thunderbolt



Seagate Central

Full review: tinyurl.com/Lf3x47a

★★★★☆

seagate.com/gb/en; £100

Most of Seagate's NAS drives are aimed at business users, but the Seagate Central drive is designed for use in the home. There's nothing innovative about this drive, but it gets the basics right. It's competitively priced and easy to use, if very slow when writing files to disk.

Pros: Attractively priced; easy to use; good support for Mac and iOS devices

Cons: Very slow for copying files; no RAID protection of data



Western Digital My Cloud

Full review: tinyurl.com/pnqmn9k

★★★★☆

wdc.com/en; £120 (2TB)

To make a home hardware-based personal cloud, the device and software must be easy to set up and use, and be completely reliable. With the My Cloud, Western Digital has made that setup straightforward, even if the need for separate device and WD server accounts is asking for trouble.

Pros: Relatively quiet; clear and approachable web admin interface; smart iOS apps

Cons: Slow write speeds; Java requirement for Mac remote access; problems in setting up remote access; security issues with US-based DDNS



Adobe Premiere Elements 12

Full review: tinyurl.com/pygte69

★★★★★



adobe.com/uk, £78, £63 (upgrade)

If you're a home movie buff who wants to use titles and other effects to create more professional results, then Premiere Elements 12 will provide all the editing tools you need at an attractive price. Its new Guided Edit mode also makes it a great option for beginners who want to learn more advanced editing techniques.

Pros: Powerful video-editing tools at a competitive price; Guided Edit mode provides help for new users

Cons: Requires fast processor and plenty of memory to edit HD video



QuarkXPress 10

Full review: tinyurl.com/oz7fha9

★★★★☆

quark.co.uk, £959, £359 (upgrade)

If you're a QuarkXPress 8 or 9 user, there are plenty of reasons to upgrade. (If you've got an earlier version, you'll have to pay the full price). And anyone unhappy with Adobe's switch to a rental-only model for Creative Cloud will appreciate the fact you can still buy or upgrade QuarkXPress 10 outright.

Pros: New user interface; improved image displays; new tools; Cocoa code

Cons: Expensive; loss of some familiar menus



Smith Micro Manga Studio 5 EX

Full review: tinyurl.com/psadd3s

★★★★☆

manga.smithmicro.com, \$210 (£130)

Whether you opt for Manga Studio 5 or 5 EX, you're getting a worthy upgrade to 4 EX that isn't just a powerful tool for creating comic book art – but, as many artists are proving, is powerful for creating amazing digital art in general.

Pros: Excellent performance; updated brush engine; layer modes; multiple file handling; custom brush creation; new user interface; EX4 page and story file importing

Cons: Only two features differentiate between the cheaper standard version and the EX version



Maxon Cinema 4D R15

Full review: tinyurl.com/nprhhdh

★★★★☆

maxon.net; Prime £720, Broadcast £1,380, Studio £3,120, upgrade from £276

Overall this release adds stability and refinements, as well as more flexibility and power – especially on the rendering side. Most of the updates seem to have been well thought-out, and definitely build on what was already a very solid package.

Pros: Ease of use; new Team Render; newly developed Irradiance Cache; updated Bevel tool; Intel Embree in physical renderer; extremely stable

Cons: Hoped for more updates to modeling workflow; no updates to BodyPaint 3D; no updates to UV editing



Autodesk Mudbox 2014

Full review: tinyurl.com/o3mmgt4

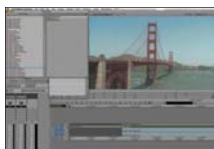
★★★★☆

autodesk.co.uk, £840, upgrade £588

Regardless of any retopology issues, Mudbox remains a great choice for producing digital sculptures and is unmatched in 2D/3D texture painting. However, since the main new features in Mudbox 2014 are for retopology – and they're not up to par with those found in the competition, it's difficult to recommend the 2014 upgrade.

Pros: Top-notch 3D sculpting and 2D/3D painting workflows; shallow learning curve

Cons: Retopologising imported or scanned models requires that models be prepped prior to retopology



Avid Media Composer 7

Full review: tinyurl.com/kjg3hst

★★★★☆

avid.com/uk, £862, £262 (upgrade)

Most of the changes with Media Composer 7 are performance related rather than adding killer new features. Existing Avid customers will love these changes as they speed up the workflow significantly, but if you're not already committed to Media Composer then this probably won't convince you.

Pros: Ability to dynamically extract resolution from hi-res sources; more audio options; cheapest version yet

Cons: Relies on keyboard shortcuts; stereo workflow requires 16GB RAM; spanning markers are clunky; window system can be messy



Adobe InDesign CC

Full review: tinyurl.com/m3gvmqo

★★★★☆

adobe.com/uk, £17 per month single-app plan, £37 a month for teams

InDesign CC contains very few new features – from a user's perspective this isn't a major upgrade. However, if your work involves creating ePub books, you'll want it just for the improvements to ePub formatting. Numerous enhancements to the font menus make choosing fonts much more efficient and flexible.

Pros: Retina display support; font menu and ePub improvements; QR code generator

Cons: Meagre new features



Adobe Edge CC

Full review: tinyurl.com/kw7po7t

★★★★☆

adobe.com/uk, £17 per month single-app plan, £37 a month for teams

Unless you require the animation features of Edge Animate, we would find the price hard to justify. For more experienced teams, we're not sure how useful are these tools when simpler tools may suffice. However, if you're already a Creative Cloud member and heavily wedded to Adobe's app ecosystem, they may prove more useful.

Pros: Tight integration with other Creative Cloud applications; preview design and code easily on iOS and Android devices; use web fonts on your desktop

Cons: Applications lack native UI and share an inconsistent design; preview functions limited to Chrome browser; applications not available to purchase separately



Adobe Illustrator CC

Full review: tinyurl.com/kcuu7uv

★★★★☆

Adobe, adobe.com/uk, £17 per month single-app plan

Illustrator CC introduces three new features that will be a useful addition to every designers toolkit. The first of these is the Touch Type tool, which lets you individually edit each letter. Secondly, you can now have a brush made up of a raster image. And finally, there's the Kuler online palette generation tool.

Pros: Smarter workspace appearance; extensive resources; Kuler iPhone app interaction; improved type control

Cons: Commitment to CC, uninspiring bitmap image strokes



Adobe Dreamweaver CC

Full review: tinyurl.com/ny34xej

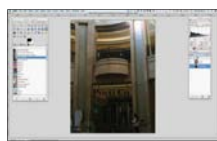
★★★★☆

Adobe, adobe.com/uk, £17 per month single-app plan

For those wedded to Dreamweaver, upgrading is a no-brainer, even if there's hardly a glut of new features. It's also a powerful tool for working on sites created with the program itself, as you'd expect. For those who've abandoned Dreamweaver, there's little reason to return. For newcomers, it's a decent product.

Pros: Edge Web Fonts integration; user-friendly responsive site workflow; great CSS Designer panel

Cons: Default responsive layout is dated; still a weighty – and sometimes sluggish – app; 'Adobe OS' UI can be fiddly



GIMP 2.8.10

Full review: tinyurl.com/k7wnsux



gimp.org, Free

When using GIMP, you soon realise just what the little paid-for productivity touches are worth in other applications. There are interface niggles and it's also slow at times. However, it's free, so giving it a trial should be a no-brainer. You've got nothing to lose but time.

Pros: Free; constantly updated; OS X Mavericks support; many useful and some unique tools; new cage transform; rotatable brushes; layer groups and improved text tool

Cons: Slow operation; clunky dialogs; proprietary file format; no file management/image organisation



CyberLink PhotoDirector Ultra 5

Full review: tinyurl.com/p4em2fq



cyberlink.com, £79

Still keeping focus on organisational tasks, the 64-bit PhotoDirector also gains strength in the image-processing and correction areas with this release. Features such as HiDPI support, HDR Bracketing, Split Toning and Channel Curves are welcome, as is automatic stacking in the Photo Browser.

Pros: HiDPI and 64-bit support; RGB channel curve adjustments; auto-stack groups of shots; bracketed HDR; output to 4K video slideshow

Cons: No .PSD support; lens profiles database needs more expansion; automatic stacking a bit hit-and-miss



Pixelmator 3.0 FX

Full review: tinyurl.com/naztkjL



pixelmator.com, £20

Pixelmator feels bit like a cross between Photoshop, Motion and QuarkXPress – although there's no CMYK support for print workflows. It would be nice if filters could be applied as live or 'smart' effects, but the power and variety on offer here is welcome.

Pros: Good value; rewritten for OS X Mavericks; new Layer Styles and Effects; liquify tools; versatile; Retina display support; GPU acceleration via Core Image

Cons: No photo management/cataloguing; smart effects would be a bonus; lack of cross platform support might bother some; App Store download only



Corel AfterShot Pro

Full review: tinyurl.com/ouay3y7



corel.com, £80

Decently priced and powerful, there's a lot to like about AfterShot Pro. The lack of some tools is a downside, but you can assign an external editor in the Preferences for fine detail work. This is a fast and powerful Raw tool, with strong colour correction, while using Layers and Regions is good for selectively sorting portions of a photo.

Pros: Speedy Raw workflow; Layers and Regions adjustments; Adjustment presets; third-party plug-ins support; GPU hardware acceleration

Cons: No .PSD support; relatively low number of tools; not the most powerful cataloguing workflow; no Retina display support



Alien Skin Exposure 5

Full review: tinyurl.com/kL5tcxL



alienskin.com, \$149 (£89)

While this isn't a radical update in terms of the number of effects you are getting, the interface change so that far more grunge and grime effects can be applied at once is very welcome. It's also still the best film- and retro effect plug-in money can buy.

Pros: New Polaroid film emulation; new lighting effects; redesigned interface; changes to some of the presets; save own combinations; grunge-orientated effects more flexible

Cons: Not enough new effects; can only flip effects not rotate them; previews are split screen with no side-by-side option



PicSketch

Full review: tinyurl.com/n5mv36z



softease.biz, £2.99

PicSketch produces some good effects, but making the surrounding scribbling part of a separate mode that doesn't even turn the photo into a sketch is a little stupid. It's cheap, but the sketch styles get repetitive too quickly, making this app one for the occasional conversion rather than if you need to do it all the time.

Pros: Cheap; good results easily attainable; various paper backgrounds; some preset sketch effects; blending and colouring options

Cons: Control for brush size is a blunt instrument; surround scribbles in a separate mode; Preset mode doesn't turn photo into a sketch; not enough control over process



Adobe Photoshop Elements 12

Full review: tinyurl.com/kLbb49o



adobe.com/uk, £78, £65 (upgrade)

While the user interface could use some tweaking to make it more intuitive, this has many useful photo-editing and organising tools for hobbyists who don't want to fork out for the professional version of Photoshop. We'd suggest looking into cheaper alternatives such as iPhoto or Aperture before purchasing Elements, though.

Pros: Effects, textures and frames add fun ways to edit photos; new features such as Content-Aware Move and Pet Eye are frequently useful

Cons: Some textures, frames and Guided Edits are gimmicky; interface is clumsy and unintuitive; Revel feature costly if more than 50 photos are required



Corel Painter X3

Full review: tinyurl.com/nkd2bmd



corel.com/uk, £315, £158 (upgrade)

If you're looking to upgrade from a previous version, there are some pretty enticing improvements to X3 that may well make it worth your while, but like all upgrades, it's whether you feel that the additions will be of use to your own creative process.

Pros: Intuitive improvements; affordable

Cons: Steep learning curve



Adobe Photoshop CC

Full review: tinyurl.com/Lo9Leu9



adobe.com/uk, £17 per month single-app plan

This release has plenty for you to get your teeth into. There's something for everyone, but the real star is the Camera Shake Reduction filter. The improvements to the 3D engine are also notable. As it is, this is a decent release with usable functions rather than unnecessary bloat.

Pros: Camera shake filter; 3D performance increased; Spot Removal in Camera Raw excellent; upscaling is better than CS6; vector objects with corners can be re-edited

Cons: Smart Sharpen not massively better; upscaling not as good as third-party plug-ins; limited 3D-format support; numerous windows use old colour scheme



Adobe Lightroom 5

Full review: tinyurl.com/ljcwse2



adobe.com/uk, £57 or from £17 per month for Creative Cloud subscription

Busy photographers may view Lightroom 5 as the release that enables them to let go of Photoshop for most tasks. New features keep coming and propel Lightroom ahead of Apple's Aperture. The fact you don't have to subscribe to own your copy is also good.

Pros: Lots of ways to sort images; build catalogues; creative presets; Healing Brush good for simple areas; considerable control over exposure; retrograde geotagging

Cons: Library getting overly complex; some bugs; Upright tool well hidden; Advanced Healing Brush not called that in the app



Nuance Dragon Dictate

Full review: tinyurl.com/mfwrcwg

★★★★☆

nuance.co.uk; £125 (£65 upgrade)

Although OS X includes voice-command software, Nuance Dragon Dictate for Mac 4 is a far more mature product. The speech recognition is excellent and the addition of the transcription feature could prove invaluable to students and those who need to write up speeches or presentations.

Pros: Excellent speech recognition; new multiple-profile transcription mode and Gmail integration

Cons: Browser control a little lacking; no punctuation in transcription mode



Draft

Full review: tinyurl.com/k5cvwua

★★★★★



draftin.com; Free, \$3.99 (£2.40) per month, \$39.99 (£24.40) per year

Drafts is currently free to use as the developer, Nathan Knotny, improves and adds features. Note that it's all the work of just one guy. You're encouraged to subscribe to keep the project going – and we think it's worth it.

Pros: Collaborative document editing; strong version control

Cons: A little slow when switching between views or importing



SimpleTax

Full review: tinyurl.com/n6pudsf

★★★★★

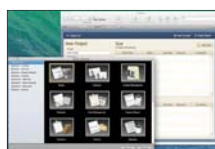


gosimpletax.com, Free

SimpleTax is a great service for those with straightforward tax affairs but who lack the confidence to do their own calculations. Accountancy fees can be an unwelcome expense, but this does a similar job – and for free. Best of all, it demystifies the whole process, showing in simple terms what you can and can't claim for.

Pros: Free; import data from your own sources; calculations performed for you

Cons: You'll need to have all your tax details to hand before you start



FileMaker Pro 13

Full review: tinyurl.com/nwsp3hc

★★★★★

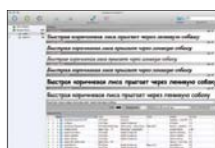


filemaker.co.uk, £286

If you're already a FileMaker user, the upgrade shouldn't take much thinking about. This version builds significantly on the offering you already have – especially if you need to deploy to mobile devices. And if you're looking for a database-building tool for the first time, FileMaker Pro 13 has many attractions.

Pros: Fast database design with Starter Solutions; styles and templates; deployment to web and mobile devices

Cons: Additional costs build up for web deployment



Extensis Suitcase Fusion 5

Full review: tinyurl.com/Lpwyxgp

★★★★☆

extensis.com; £84, upgrade £42

The latest upgrade to Extensis' font-management system doesn't give you as many new features as did v.4 but, as designers adopt Creative Cloud, Suitcase Fusion users will inevitably need the new plug-ins. The QuickComp feature is attractive and works well if you're doing initial concept work.

Pros: Adobe CC in-app support, QuickComp template previewing, tweaked user interface

Cons: No support for Adobe Typekit



NoteSuite 1.0

Full review: tinyurl.com/px4wrd3

★★★★☆

notesuite.io, £2.99

NoteSuite is a good note-taking app, even if it can't outgun rivals such as Evernote. However, its outstanding feature is the smooth iCloud syncing, which will definitely appeal to anyone that uses an iPad or multiple Macs.

Pros: Affordable, versatile tools for organising notes and to-do lists; automatic iCloud syncing; works on Mac and iPad

Cons: No iPhone version; fewer features than the iPad version



TopXNotes

Full review: tinyurl.com/q9kh4xk

★★★★☆

tropic4.com, £27

TopXNotes's price is pretty steep, but it's clear its features were designed for those who take seriously the task of keeping notes. If you fall within this audience, the app does its job capably and efficiently, with an impressive array of features and a user interface that's well thought out and provides an excellent user experience.

Pros: Plenty of functionality at your fingertips; effortless search features; helpful MultiView for perusing multiple documents

Cons: MultiView windows don't resize properly



Scapple for OS X

Full review: tinyurl.com/oo6w93

★★★★☆

literatureandlatte.com, £10

If you are prepared to embrace thinking visually, Scapple is a useful tool that could turn small ideas into big ones without too many headaches. Equally, it's a handy way of collecting scraps of ideas that may not come to anything, but make more sense when seen together.

Pros: Drag-and-drop simplicity; freeform note making; Scrivener integration; ability to easily export notes for sharing and printing; iCloud support; MathType support; inexpensive

Cons: Users need to start mapping ideas visually and regularly; some features including iCloud support dependent on OS X



SiteMaker Moonfruit Standard

Full review: tinyurl.com/ndfemre

★★★★★



moonfruit.com, £7.20 per month

Moonfruit is a polished, slick, web-design application, with nearly all the features you could need. It's well-designed and makes it easy to customise a template. All the key features are in place to create a modern-looking, full-featured site that's easy to edit.

Pros: Very well-designed; easy to select and customise a template; key features in place

Cons: Low storage allowance



1&1 MyWebsite Personal

Full review: tinyurl.com/ojxq2oy

★★★★☆

1and1.co.uk, £6 per month, £72 per year

1&1 MyWebsite Personal is a decent tool for putting together a standard website. There are a lot of predefined templates (300 to be precise), so finding something from which you can work is easy.

Pros: 300 templates; straightforward; automatic picture-size optimisation

Cons: Template categories are less than helpful



Intego Mac Internet Security X8

Full review: tinyurl.com/lyfznc0

★★★★★



intego.com; £40 per year

If you want software that consistently scores highly for spotting malware, Intego is for you. It's simple to install and set up, scored highly in our lab tests and has a minimal effect on Mac resources in normal use.

Pros: One of the most effective malware solutions for OS X; little resource hogging; easy to set up and use

Cons: Not as configurable as some



Eset Cyber Security

Full review: tinyurl.com/nsu3zqz

★★★★☆

eset.co.uk; £30 per year

Eset Cyber Security for Mac is a sophisticated security application with good malware detection. It's suited to anyone who likes to tweak and optimise, but is still simple enough to install and start comprehensive protection for any user.

Pros: Decent malware protection; sophisticated options available; fast on-demand scans

Cons: Can be complex to configure



Avira

Full review: tinyurl.com/mnp00ry

★★★★☆

avira.com; Free

Avira's free offering for Mac users has good malware-spotting skills and a tidy user interface that doesn't detract from its duties. With a low impact on system performance, Avira shouldn't make its presence known when working behind the scenes.

Pros: Free; good malware detection; little system slowdown; better privacy policy

Cons: Heuristic scanning sometimes produces false positives



Parallels Desktop 9

Full review: tinyurl.com/qjeps4

★★★★☆

parallels.com/uk, £64

Parallels has added some useful new features to its Desktop 9 application, keeping it the highest-performance virtualisation package for OS X. It's support for OS X guests is embarrassingly poor, but Windows and Linux both work very well, and with terrific graphics that make these VMs feel like native installs in full-screen mode.

Pros: Fast and fluid for Windows and Linux VM guests; good integration for Windows 8 and 8.1; easier installation from disk images; better battery economy

Cons: Mac OS X as guest machine almost unusable



Cocktail 6.7

Full review: tinyurl.com/noq5co6

★★★★☆

maintain.se, £10

While most of Cocktail's features already exist on the Mac, being able to access them without using a number of system tools and Terminal make Cocktail a highly useful utility. The unregistered version of Cocktail allows for 10 launches before timing out – that should be sufficient for you to decide whether it is right for you.

Pros: Comprehensive set of repair and maintenance tools; additional Automator actions; automatic Pilot mode; software frequently updated

Cons: Some tools are complex to use



Freeway Pro 6

Full review: tinyurl.com/kx9toz4

★★★★☆

softpress.com, £104

This design-led tool will let you publish content-rich websites in modern browsers, simply and at a very fair and reasonable price. It's not perfect: laying out elements could do with some automation, for example, and Freeway Pro apparently has only one level of undo.

Pros: Publish content-rich sites; fair price; HTML 5 support; 20 percent discount to education, charities and the elderly

Cons: Could do with more automation; one level of undo



Samepage.io

Full review: tinyurl.com/Lxgbhjc

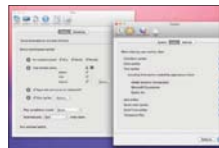
★★★★☆

kerio.co.uk, free

Kerio Samepage.io will appeal to small businesses and individuals who have used Workspace before, but it's far more accessible to newcomers, with its much reduced learning curve. It's free to try, too, so if you're managing team projects, take a look.

Pros: Cloud based; remotely hosted; build your own team collaboration or project space; 10GB storage in free version

Cons: Workspace users may be disappointed the software has been replaced by Samepage



CleanMyMac 2

Full review: tinyurl.com/qftxvd

★★★★☆

macpaw.com, £34

This seasoned utility can deal with almost every aspect of data cleaning. It's expensive when compared with single-function open-source apps, but its integrated approach is well worth the money. There's a good reason why CleanMyMac has built up an enviable reputation, and this version will only further enhance that.

Pros: Excellent user interface; comprehensive set of tools; clear explanations of scan results; highly configurable

Cons: A little expensive



PrivacyScan 1.2

Full review: tinyurl.com/qygtfer

★★★★☆

macscan.securemac.com, \$14 (£9.70)

PrivacyScan is a worthwhile addition to your set of security tools. It's easy to use, handles most modern web browsers and also supports common Mac apps.

As long as you remember to run it, you can rest assured that your privacy will remain protected.

Pros: Easy to use; can remove an array of privacy threats; supports most modern browsers and essential Mac apps; includes secure shredding as well as standard delete

Cons: No scheduling or automation features; no ability to preserve some data



Extensis Portfolio Server 11.0.1

Full review: tinyurl.com/o73r6tx

★★★★★



extensis.com, Studio £1,798, POA for Professional and Enterprise editions

Portfolio Server effortlessly handles media management, and support for more file types and client customisation is welcome. Flash is required for all Client and Server web browsers, so may restrict your Client base. The Studio version has a one catalogue/three-user restriction.

Pros: Rapid and effective cataloguing of growing range of assets; more user customisation; AutoSync folders; enhanced keywording and metadata features

Cons: Flash-based web clients restricts some use; Studio version is limited to one catalogue and three users

The iPhone question

Apple's latest earnings call tells us only that things are about to get interesting for the iPhone

Apple's quarterly earnings calls have become events in their own right. It's fiscal compliance turned into a massive PR- and marketing opportunity. My favourite part of the process is the post-call analysis, where the pro- and anti-Apple lobbies opine that Apple is set for world dominance/destruction. Delete as appropriate.

This is especially tricky for those of us who work for *Macworld*. For one thing, we pride ourselves on independent and impartial tech coverage, and for another we write for Apple fans. Our lack of an organisational bias makes it tough to know who to believe. So let's follow the money and come to our own conclusions.

In October, we heard what is on the face of it a strong story from Apple. With my pro-Apple *Macworld* head on, I am delighted to reveal that in its 2014 Q3 call Apple announced a record quarter. We heard that the company had sold 39.2 million iPhones and taken \$42.1bn in revenue. Given that even the most optimistic analysts were forecasting 40 million iPhone sales in a quarter that included only 10 days when the new iPhones were on sale, that seems outstanding. Consider also that the new iPhones weren't yet available in China when those figures were generated.

There is not a single consumer tech company on the planet that wouldn't swap places with Apple right now. Not one. Not Microsoft, Google, Dell, Lenovo. Apple is hugely profitable, and enjoys a very gentle ride from both consumers and critics. It is high and rising.

But not as fast as it used to. As ever, the devil is in the detail here, and Apple's call did reveal some interesting trends. Let's focus on the iPhone.

Apple's call revealed that the year-on-year iPhone figures were better in the first



There is not a single consumer tech company on the planet that wouldn't swap places with Apple right now

quarter of 2014 than in the recently closed third quarter. This is simply explained, and broadly positive for Apple. At the end of 2013 Apple started selling iPhones in China for the first time. They proved hugely popular, and those new Chinese users represent a huge growth opportunity for Apple and the iPhone.

However, those Chinese early adopters were mostly buying iPhone 5s or 5c handsets. It is unlikely that the majority of them will jump straight to the iPhone 6, so we may not see the expected bump in iPhone figures in China when the Q4 figures come out. Or then again, we might. I've heard a figure of 10 million pre-orders being bandied around in reference to China and the iPhone 6 and 6 Plus launch, so let's wait and see.

It matters. The bump in global iPhone sales that is generated by each successive iPhone launch is getting smaller. Or – to put it another way – the growth in iPhone adoption is slowing. Still growing, but growing more slowly than ever.

This is only natural. In the territories in which Apple is strong, most people who want smartphones have smartphones. You rarely need a new smartphone within two to three years. And when you have been on top as long as Apple has, growth is inevitably going to slow down. Rivals copy and undercut, and markets get crowded.

China is the last great unconquered territory for the Apple smartphone. It's a country with billions of people, many of whom are newly affluent. It's also a country in which Apple phones have next to no market share. If Apple wants the iPhone to continue to grow, then it needs China.

Meanwhile back in the US, the largest group of iPhone users are still on the iPhone 4 and 4s. After such an encouraging start for its new smartphone, Apple will hope to convert them to the iPhone 6 and 6 Plus. Which is why the relatively flat figures for iOS 8 adoption make very interesting reading.

Neither Apple nor the iPhone is doomed, no matter what you read. Far from it. Both the company and the product line look to be set fair for a uniquely profitable short- and medium-term future.

But these are interesting times for Apple watchers, and the Q4 figures will make for very interesting reading. US upgrades and China sales will tell us whether Apple is set for another iPhone surge. And whatever you might think about the big beast of Cupertino, you wouldn't bet against it.



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